ASA 2026

Kaye Cook

Fellipe do Vale

Romanita Hairston

John E. Harris

Jimmy Lin

SCIENCE FAITH SYNERGY:

GLORIFYING GOD AND SERVING THE WORLD

80th Annual Meeting | July 24 - 27, 2026

Gordon College, Wenham, MA

THE AMERICAN SCIENTIFIC AFFILIATION

Contents

General Information 1

Premeeting Activities 3

Program Schedule 3

Abstracts of Plenaries 9

Abstracts of Contributed Papers 13

Abstracts of Posters 31

Exhibitors, Sponsors, authors, and Advertisers 38

Instutional Members 39

Index of Presenters 40

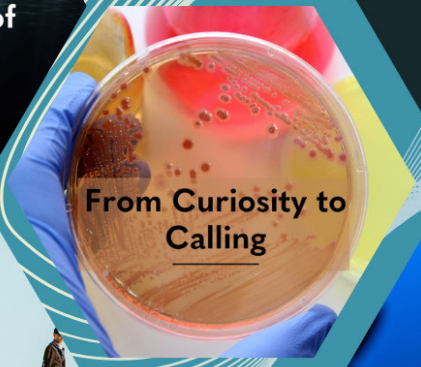
Campus Map 42

SCIENCE FOR THE CHURCH

Wonder + Worship

Try our free weekly newsletter bringing science, faith, and curiosity to ministry

Scan to Subscribe



General Information

ASA Registration

See schedule and locations below.

Thursday:	3:00 PM – 10:00 PM; KOSC Loggia
Friday:	8:15 AM – 10:00 PM; KOSC Loggia
Saturday:	8:15 AM – 8:30 PM; KOSC Loggia
Sunday:	10:30 AM – 8:00 PM; KOSC Loggia
Monday:	8:15 AM – 2:00 PM; KOSC Loggia

Campus Housing

After registering at the ASA table, room keys are picked up at the residence hall desk. If you are arriving after 10:00 PM, please call Dana Oleskiewicz, 330-466-5631. Lost keys / cards are charged $100 USD.

Campus Parking

There is no charge for parking on campus. See campus map for parking lot locations.

Campus Security

Phone number: 978-867-3333, emergency; 978-867-4444, non-emergency.

Campus Wi-Fi Network

Select **Gordon Guest** Network. Register with name, phone number, and email address. Accept the terms of use and submit. The login page appears again (looks same as account registration page). Login.

Exhibit Tables

are located in KOSC Chairman's Room.

Friday:	4:30 PM – 10:00 PM
Saturday:	9:45 AM – 5:00 PM
Sunday:	10:30 AM – 5:00 PM
Monday:	9:45 AM – 11:45 AM

Field Trips

Van pick up and drop off in the Chapel Loop.

Friday:	6:00 AM – 4:00 PM	New England Aquarium
Friday:	7:00 AM – 2:30 PM	Cape Ann Whale Watch
Friday:	9:00 AM – 2:30 PM	Halibut Point Geology Trip
Friday:	12:45 PM – 4:30 PM	Peabody Essex Museum
Monday:	1:00 PM – 5:00 PM	MIT Museum
Monday:	1:00 PM – 5:00 PM	Birding on Plum Island
Monday:	6:00 PM – 8:30 PM	CWiS Dinner

Meal Meet-Ups

Meal meet-ups will be held in Lane Student Center. Check schedule for room.

Friday:	5:00 PM	Dinner Meet-Up: First-Time Attendees
Saturday:	7:00 AM	Breakfast Meet-Up: Geologists
	7:00 AM	Breakfast Meet-Up: Biologists
	12:00 PM	Lunch Meet-Up: Students and Early Career
	5:00 PM	Dinner Meet-Up: AI/Machine Learning
	5:00 PM	Dinner Meet-Up: Entrepreneurs
	5:00 PM	Dinner Meet-Up: Science Writers
	5:00 PM	Dinner Meet-Up: Creation Care Advocates
Sunday:	7:00 AM	Breakfast Meet-Up: CWiS (Christian Women in Science)
	7:00 AM	Breakfast Meet-Up: Theologians, Ministers, and Philosophers
	12:00 PM	Lunch Meet-Up: Spouses
	12:00 PM	Lunch Meet-Up: *PSCF* Editorial Board
	5:00 PM	Dinner Meet-Up: CSCA (Canadian Scientific and Christian Affiliation)
Monday:	7:00 AM	Breakfast Meet-Up: Engineers
	12:00 PM	Lunch Meet-Up: Legacy Giving Opportunities with Vicki Best and Janel Curry

Morning runs | Walks

Meet in front of (run) or behind (walk) Lane Student Center. All are welcome.

Saturday:	6:00 AM	Morning run, led by Dominic Halsmer
Saturday:	6:00 AM	Early bird walk around Coy Pond, led by Dorothy Boorse
Sunday:	6:30 AM	Morning run, led by Dominic Halsmer
Sunday:	6:30 AM	Morning walk, led by Jamie Noyd
Monday:	6:00 AM	Morning run, led by Dominic Halsmer
Monday:	6:00 AM	Early bird walk around Coy Pond, self-directed

Plenary Sessions are held in KOSC MacDonald Auditorium.

Friday:	7:30 PM	Fellipe do Vale, "Steaks and Salads, Diets and Desserts: Gender, Food, and Getting the Bodies We Think We Want"
Saturday:	8:45 AM	John E. Harris, "Vitiligo Treatment from the Bronze Age to the Age of Biologics: New Hope for an Ancient Disease"
Saturday:	7:45 PM	Jimmy Lin, "The Parable of the Talents, Revisited: Faithful Innovation in an Age of Intelligent Machines"
Sunday:	11:00 AM	Romanita Hairston, "The Epistemology of Attention: Why Theologians and Scientists May Have Never Had More in Common"
Monday:	8:45 AM	Kaye Cook, "From Rupture to Reconciliation: A Relational Systems Model of Divine Forgiveness"

Poster Session will be held Saturday, July 25, from 2:30 PM to 3:30 PM in the KOSC 2nd floor Lobby / Lounge. Winner of the Student Poster Contest will be announced at the Ice Cream Social | InterVarsity Reception.

Socials

Friday:	8:30 PM	Mixer	KOSC Loggia
Saturday:	6:30 PM	Line Dancing	Quad
	9:00 PM	Cookie Monstah Ice Cream Truck	Frost Circle
Sunday:	9:00 PM	Ice Cream Social | InterVarsity Reception	KOSC Loggia

Specialty Coffees Stop by the Octave Coffee cart in KOSC Loggia for a handcrafted beverage and a great caffeine boost during the conference. Drinks will be available for a **suggested donation of $5 per cup**.

Saturday:	8:00 AM – 4:00 PM	KOSC Loggia
Sunday:	Noon – 4:00 PM	KOSC Loggia

Sports Join us any time Sunday, July 26, from 5:30 PM to 7:00 PM for a game of **softball** (field behind Bennett Center) or **sand volleyball** (outside Bromley).

State of the ASA will be held Sunday, July 26, from 7:30 PM to 9:00 PM in KOSC MacDonald Auditorium.

Water Bottle Filling Stations are located 1st floor KOSC and the right side of 1st floor Lane Student Center.

Workshops

Friday:	9:00 AM 12:00 PM	Teaching Science Majors about Christianity and Science Teacher: Ted Davis	KOSC 214
Friday:	3:00 PM 6:00 PM	Introduction to the Science-Faith Conversation and the ASA Facilitators: Stephen Contakes and Louise Huang	KOSC 214

Many thanks to …

- Program chairs **Craig Story, Angie Cornwell,** and **Robert Thoelen** for their countless hours of preparation.
- Local arrangements chairs **Kristin Kendall, Marilyn Naeem,** and **Kristen Siaw** for their assistance with local arrangements and field trips.
- The many **donors** who contributed to the **Student Scholarship Fund**.

The ASA Spirit

Each presenter's beliefs and viewpoints are their own and may not necessarily represent those of the American Scientific Affiliation. The ASA strives to create a safe environment where dialogue can flourish and contrasting ideas can be discussed with courtesy and respect. As such, we encourage presenters, discussants, and members to exhibit intellectual humility in presenting, discussing, and receiving arguments, and thoughtfully consider their responses to new evidence and viewpoints. If there are any specific concerns or questions, participants are welcome to share their concern with an executive team member or board member or through the post-event survey.

Pre-Meeting Activities

Thursday, 23 July 2026		
3:00 PM–10:00 PM	ASA Meeting and Lodging Registration	KOSC Loggia
6:00 PM	Retreat for Underrepresented Scientists — Welcome, Dinner, Opening Session Organizer: **Hannah Eagleson**; Leader: **Christina Cross**	Lane Student Center, Chesters
6:00 PM	Special Friends and Fellows Dinner	First Congregational Church of Hamilton

Friday, 24 July 2026		
7:00 AM–8:30 AM	Breakfast	Lane Student Center
6:00 AM–4:00 PM	Field Trip 1: New England Aquarium[1]	Meet at Chapel Loop
7:00 AM–2:30 PM	Field Trip 2: Cape Ann Whale Watch[1]	Meet at Chapel Loop
8:15 AM–10:00 PM	ASA Meeting and Lodging Registration	KOSC Loggia
9:00 AM–2:30 PM	Field Trip 3: Halibut Point Geology Trip[1]	Meet at Chapel Loop
9:00 AM–12:00 PM	Workshop 1: Teaching Science Majors about Christianity and Science—*Teacher:* **Ted Davis***	KOSC 214
9:00 AM–5:00 PM	Retreat for Underrepresented Scientists	Lane Student Center, Chesters
12:00 PM–1:30 PM	Lunch	Lane Student Center
12:45 PM–4:30 PM	Field Trip 4: Peabody Essex Museum[1]	Meet at Chapel Loop
1:00 PM–3:00 PM	Workshop 2: Healing from Leadership Trauma—**Nicholas Rowe** CANCELLED	KOSC 214
1:00 PM–6:30 PM	Exhibits Set Up	KOSC Chairman's Room
1:00 PM–6:30 PM	Posters Set Up	KOSC 2nd floor Lobby / Lounge
3:00 PM–6:00 PM	Workshop 3: Introduction to the Science-Faith Conversation and the ASA (includes dinner meet-up) Facilitators: **Stephen Contakes*** and **Louise Huang***	KOSC 214

[1]*Please arrive 15 minutes before departure time.*

Program Schedule

Friday, 24 July 2026		
5:00 PM–6:30 PM	Dinner Dinner Meet-Up: **First-Time Attendees**	Lane Student Center Lion's Den
6:30 PM	ASA Meeting and Lodging Registration	KOSC Loggia
7:00 PM–7:30 PM	Welcome, Introductions, Announcements • **Vicki Best**, ASA Executive Vice President • **Ravi Ravichandran**, Gordon College Trustee • **Craig Story**,* **Angie Cornwell**, **Bob Thoelen**, Program Team • **Janel Curry**,* ASA President	KOSC MacDonald Auditorium
7:30 PM–8:30 PM	**Plenary I** Fellipe do Vale, "Steaks and Salads, Diets and Desserts: Gender, Food, and Getting the Bodies We Think We Want" (9) Moderator: **Janel Curry***	KOSC MacDonald Auditorium
8:30 PM	Moderator Training	KOSC 124
8:30 PM–10:00 PM	Mixer	KOSC Loggia
10:00 PM	ASA Meeting and Lodging Registration closes	KOSC Loggia

PLEASE NOTE: Number within the parentheses is the page number for the abstract.
**ASA Fellow*

SATURDAY, 25 JULY 2026

6:00 AM	Morning run, led by **Dominic Halsmer*** — Meet in front of Lane Student Center Early bird walk around Coy Pond, led by **Dorothy Boorse*** — Meet behind Lane Student Center			
7:00 AM– 8:30 AM	Breakfast — Lane Student Center Breakfast Meet-Ups: **Geologists, Biologists** —All geologists, biologists are invited — Chesters & Lion's Den			
8:15 AM	ASA Registration Opens — KOSC Loggia			
8:15 AM	**Devotions** — KOSC MacDonald Auditorium Worship Leaders: **Ciara Reyes-Ton** and **Angie Thoelen** Devotional: **Craig Higgins**			
8:45 AM– 9:45 AM	**Plenary II** — KOSC MacDonald Auditorium **John E. Harris**, "Vitiligo Treatment from the Bronze Age to the Age of Biologics: New Hope for an Ancient Disease" (9) Moderator: **Debra Schwinn***			
9:45 AM– 5:15 PM	Poster Viewing — KOSC 2nd Floor Lobby / Lounge			
9:45 AM– 5:00 PM	Exhibit Tables — KOSC Chairman's Room			
9:45 AM	Beverage Break — KOSC Loggia			
10:15 AM– 11:45 AM	**I.A. Life and Health Sciences 1** –KOSC MacDonald Moderator: **Sy Garte***	**I.B. Integration of Faith in STEM Education 1** –KOSC Fowler Moderator: **Tom Larry**	**I.C. Life and Health Sciences 2** –KOSC 124 Moderator: **Mark Strand***	**I.D. Students and Early Career** –KOSC 127 Moderators: **Hannah Eagleson** and **Joanna Lumbsden-Pinto**
10:15 AM	**Sarah M. Richart*** (13) "Preventing Smallpox in Colonial Boston: A Medical, Theological, and Ethical Controversy"	**Julianne Armijo** (13) "Chronotype and Quality of Life Among Nurses with Bipolar Disorder"	**Christina Dokter** (13) "Wisdom Science Collaborative: Building an Innovation Engine for Hunger Resilience During Conflict"	**Panel** (13–15) Faith & Work for Science: Growing in Your Vocation Panelists: • **Jonas Attilus** • **Megan Behrmann** • **Marilyn Naeem** • **Rachel Pryce** • **Jennifer Wiseman***
10:45 AM	**W. Scott McCullough** (14) "Was Copernicus a Heretic? How Inerrancy Enabled Protestants to Answer 'No.'"	**Lawrence Hawkins** (14) "The Great Commission as a Virtuous Cycle: A Systems Lens on Christian Vocation in STEM"	**Jim Painter** (14) "Fasting as an Adjunct Therapy for Disease Treatment"	
11:15 AM	**Kenneth G. Sossa** (15) "True Confessions: What Student Reflections Reveal About Christian Faith Integration in Human Anatomy"	**Uhjin Sim** (15) "Humble Minds, Discerning Hearts: Trust Formation in AI-Mediated Information Environments"	**E. Janet Warren*** (15) "The 'Daniel Diet'? Biblical and Scientific Perspectives on Nutrition"	*Cosponsored by InterVarsity's Emerging Scholars Network*
12:00 PM– 1:00 PM	Lunch — Lane Student Center Lunch Meet-Ups: **Students and Early Career** — Chesters			
1:00 PM– 2:30 PM	**II.A. Theology and Humanities 1** –KOSC MacDonald Moderator: **William Horst**	**II.B. Life and Health Sciences 3** –KOSC Fowler Moderator: **Jim Painter**	**II.C. Physical and Environmental Sciences 1** –KOSC 124 Moderator: **Robert Geddes***	**II.D. Faithful Prescence in Graduate School and Industry** –KOSC 127 Moderator: **Erik Lindquist**
1:00 PM	**Deborah Haarsma*** (16) "Staying in Conversation: Evangelical Views on Science and Effective Ways to Engage"	**Fred S. Cannon*** (16) "Context for Genetics of Adam and Eve?"	**Marilyn Naeem** (16) "Structure-Activity Relationships of Tryptamine Derivatives at Serotonin Receptors: Chemical Characterization for Mental Health Research"	**Workshop** (16–18) A three-part career preparation workshop featuring (1) a panel discussion with ASA Fellows and Christian professionals, (2) roundtable conversations with career/discipline mentors, and (3) small-group sessions with graduate peers. Students explore graduate school preparation, networking, and vocational discernment through a lens of faith and purpose.
1:30 PM	**Tony Jelsma*** (17) "Genetic Variation, Health, and the Limits of Prediction"	**Perry Marshall** (17) "Biology Doesn't Obey Mathematics: Biology Creates Mathematics"	**Robert Strauss** (17) "The Intersection of Plate and Salt Tectonics: The Impact on Life"	
2:00 PM	**Dana Oleskiewicz** (18) "Increasing Gender Literacy by Listening to Gender Diverse Young People: What Would Jesus Do?"	**Sy Garte*** (18) "Inheritance, not Evolution, Is the Fundamental Principle of Life"	**William Jordan*** (18) "Using Engineering to Glorify God and Serve the World"	

PLEASE NOTE: Number within the parentheses is the page number for the abstract.
**ASA Fellow*

2:30 PM–3:30 PM — **Poster Session** — KOSC 2nd Floor Lobby / Lounge

1. **Ladi Achimugu**, "Women, Religion, and Conflict: Decrying the Religious Justification for the Captivity of Women and Children as an Act of Conquest" ‡ (31)
2. **Joshua Afzal**, "Creation-Centered Agriculture: Integrating Sustainable Crop Science, Ecology, and Christian Theology" ‡ (31)
3. **Jonas Attilus**, "'God Is Talking to Me': Hallucinations, Discernment, and Clinical Responsibility" ‡ (31)
4. **Anita Azeem**, "Narratives That Connect: Books, Friendships, and *Imago Dei*" ‡ (32)
5. **Cerena Bilong**, "Traditional Medicine, Neuroscience, and Faith: A Cameroon-Centered Evidence Map of Indigenous African Knowledge for Global Health and Creation Care" ‡ (32)
6. **Geoffrey Boadu**, "The Christian Ethics Surrounding Genetic Editing for Gene Therapies and Regenerative Cosmetics" ‡ (32)
7. **David Campbell**,* "The Eloquence of the Clams: Taphonomy as a Clue to Earth History" (32)
8. **Timothy Campbell** and **Abby Mace**, "Do Work as Unto the Lord" … or Else It All Sounds the Same" ‡ (33)
9. **Paul Carr**, "Saving Creation: The ASA Science and Religion Course Program" (33)
10. **Rocky Chang**, "Cybersecurity: Digital Stewardship in a Violent World" (33)
11. **Richard Denton**, "Subtle Distinctions of Meaning in the Bible Translator's Assistant Software for Bible Translation" (33)
12. **Ogochukwu Elisha-Wigwe**, "Beyond the Trip: A Humanitarian Study Abroad Impact Evaluation Toolkit" ‡ (34)
13. **Elaine Fung**, "Serving God, Students, and Leaders Through the Gift of Communication: Case Study Servant Co-leadership" ‡ (34)
14. **Deborah Gaisie**, "How College Mergers Impact the Faculty Labor Market" ‡ (34)
15. **Matehya Grecula**, "Environmental Stewardship and Water Quality: Assessing *E.coli* Levels in the Gila River" ‡ (34)
16. **Paul Griffioen**, "Reinforcement Learning: A Christian Perspective" (35)
17. **Rosemarie Hunter** and **Chris English**, "Stewarding Data from the Wheaton College Intelligent Solar Program" ‡ (35)
18. **Chloe Liu**, "Ethical Conduct of Clinical Trials as an Expression of Glorifying God" ‡ (35)
19. **Xiaomin Ma**, "Exploring Conceptual Resonance Between Quantum Tunneling and Miracles in the Bible" ‡ (35)
20. **Xiaomin Ma**, "Interpreting Biblical Paradoxes Through the Lens of Quantum Superposition" ‡ (36)
21. **Amona Major** and **Leytisha Jack**, "Belonging Through Technology: International Graduate Student Perspectives" ‡ (36)
22. **Christian Osei**, "Examining the Impact of Tobacco Tax Reform in Ghana: Fiscal and Public Health Implications" ‡ (36)
23. **Dwayne Simmons**, "Hear O Israel: The Shema through the Lens of Neuroscience" (36)
24. **Alan Tai**, "A Physicist's Perspective on the Triune God: Roadmaps to Wisdom for Science and Life" (37)

‡*Student posters*

2:30 PM — Refreshment Break — KOSC Loggia

3:30 PM–5:00 PM

III.A. Theology and Humanities 2 –KOSC MacDonald	**III.B. Behavorial Sciences** –KOSC Fowler	**III.C. Humanities and Faith** –KOSC 124	**III.D. Lightning Talks: AI and Tech 1** –KOSC 214
Moderator: **Ted Davis***	Moderator: **Janet Warren***	Moderator: **Roger Wiens***	Hosts: **Hannah Eagleson** and the ASA Affiliation of Christians in AI
William Horst (19) "Universal-Sounding Language in the Early Chapters of Genesis"	**Steven J. Willing** (19) "The Science of Pride and Humility: Biblical Wisdom for a Broken World"	**Darren Craig*** (19) "Science as a Lens for Seeing Light in Scripture"	**Hannah Eagleson and the Affiliation of Christians in AI, Hosts** (19–21) This session will feature the following: 1. Lightning talks modelling ways to connect faith and work in AI and other technology fields 2. Small group discussions to grow the conversation 3. Closing Q&A
Jim Stump (20) "The Spiritual Journey of *Homo Sapiens*—Part 2"	**Rob Ethan Santiago** (20) "From Detection to Resolution: How Children and Adults Negotiate Conflicting Moral Concerns"	**Seth Hart** (20) "From Medieval Faith to Modern Biology: Nicholas of Cusa and the Extended Evolutionary Synthesis"	
Paul Arveson* (21) "2026: A Return to the Cold War?"	**Dwayne Simmons** (21) "Hear O Israel: The Shema through the Lens of Neuroscience"	**Ronald V. Hodges** (21) "Creation, A Choral Work"	

5:00 PM–6:30 PM — Dinner — Lane Student Center
Dinner Meet-Ups: All attendees interested in **AI/Machine Learning** and all **Entrepreneurs** are invited — Chesters
Dinner Meet-Ups: All attendees interested in **Science Writers** and **Creation Care Advocates** are invited — Lion's Den

6:30 PM–7:30 PM — Line Dancing — Quad
Kathy Sperounis, Instructor

7:45 PM–9:00 PM — **Plenary III** — KOSC MacDonald Auditorium
Jimmy Lin, "The Parable of the Talents, Revisited: Faithful Innovation in an Age of Intelligent Machines" (10)
Moderator: **Karma Carrier**

9:00 PM–10:00 PM — Cookie Monstah Ice Cream Truck — Frost Circle

PLEASE NOTE: Number within the parentheses is the page number for the abstract.
**ASA Fellow*

SUNDAY, 26 JULY 2026

6:30 AM	Morning run, led by **Dominic Halsmer***			Meet in front of Lane Student Center
6:30 AM	Morning walk, led by **Jamie Noyd**			Meet in front of Lane Student Center
7:00 AM–8:30 AM	Breakfast Breakfast Meet-Up: **Christian Women in Science (CWiS)** —All women are invited Breakfast Meet-Up: **Theologians, Ministers, & Philosophers** —All theologians, ministers, & philosophers are invited			Lane Student Center Chesters Lion's Den
9:30 AM–10:30 AM	**Worship Service** Worship Leader: **Bil Mooney-McCoy**, Director of Worship, Gordon College Pastor: **Sean McDonough**,* "Sunken Gardens" Offering: Global Christian Book Fund			KOSC MacDonald Auditorium (10) (10)
10:30 AM–5:00 PM	Poster Viewing			KOSC 2nd Floor Lobby / Lounge
10:30 AM–5:00 PM	Exhibit Tables			KOSC Chairman's Room
10:30 AM	Beverage Break			KOSC Loggia
11:00 AM–12:00 PM	**Plenary IV** **Romanita Hairston**, "The Epistemology of Attention: Why Theologians and Scientists May Have Never Had More in Common" Moderator: **Mike Beidler***			KOSC MacDonald Auditorium (11)
12:00 PM–1:00 PM	Lunch Lunch Meet-Up: **Spouses** —All spouses are invited Lunch Meet-Up: ***PSCF* Editorial Board**			Lane Student Center Chesters President's Dining Room
1:15 PM–2:45 PM	**IV.A. Physical and Environmental Sciences 2** –KOSC MacDonald Moderator: **Kurt Wood**	**IV.B. Physical and Environmental Sciences 3** –KOSC Fowler Moderator: **Jim Green**	**IV.C. Faith and STEM Education 2** –KOSC 124 Moderator: **Peter Story**	**IV.D. Lightning Talks: AI and Tech 2** –KOSC 214 Hosts: **Hannah Eagleson** and the ASA Affiliation of Christians in AI
1:15 PM	**Terry M. Gray*** (22) "Fossil-Fuel-Free Future for Global Energy?"	**Dorothy Boorse*** (22) "Christian NGO Engagement with the Sustainable Development Goals: An Assessment of Strengths and Opportunities"	**Finney Premkumar** (22) "Glorifying God: The Metaphysical Limitations of Science and Its Implications for Theological Reflection"	**AI and Tech 2** (22–24) This session will feature the following: 1. Lightning talks modelling ways to connect faith and work in AI and other technology fields 2. Small group discussions to grow the conversation 3. Closing Q&A
1:45 PM	**Joanna Lumbsden-Pinto** (23) "From Ashes to Renewal: Fire Ecology as Window into Divine Restoration"	**Grace Ju Miller** and **Joel Fletcher** (23) "Faith Informed Agriculture"	**Kelly J. Vazquez** (23) "Resilient by Design: Fostering Professional Resilience in Undergraduate Christian Engineers"	
2:15 PM	**Islamiat Abidemi Raji** (24) "University Campuses As Living Laboratories: Bioacoustics, Avian Biodiversity, and Student Engagement"	**Olufemi Fatunsin** (24) "Functional Diversity, Forest Structure, and Carbon Storage: Ecological Insights for Christian Perspectives on Creation Care"	**Roger C. Wiens*** (24) "Starting a New ASA Chapter at Purdue University"	
2:45 PM	Refreshment Break			KOSC Loggia

PLEASE NOTE: Number within the parentheses is the page number for the abstract.
**ASA Fellow*

	V.A. Tech, Computer Science, and Engineering –KOSC MacDonald	V.B. Life and Health Sciences 3 –KOSC Fowler	V.C. Faith and STEM Education 3 –KOSC 124	V.D. Life and HEALTH SCIENCES 3 –KOSC 127
3:15 PM–4:45 PM	Moderator: **Paul Griffioen**	Moderator: **John Wood***	Moderator: **Louise Huang***	Moderator: **Jim Painter**
3:15 PM	**Kurt Wood** (25) "Who's Using Who? Perspectives on AI as Tool, Idol, and Master"	**ASA Panel on Gender** (25–27) Transgender Conversations in an Era of Uncertainty Panelists: • Plenary speaker **Fellipe do Vale** • Theologian and New Testament Scholar **Sean McDonough** • Medical doctor **Steven Willing** • Psychologist **Kaye Cook Heather Looy** (ill)	**J. Elizabeth Doan** (25) and **Aaron Grawe** "Interdisciplinary, Faith-Praxis, and Experiential Integration in the Biological Sciences: A Pietist Approach"	**Hope Ingalls** (25) "Impact of Diet and the Gut Microbiota on Mental Health: A Meta-Analytic Approach"
3:45 PM	**Noel W. Anderson*** (26) "Weeds, Robots, and Creation Care—Glorifying God and Serving the World"		**Dominic Halsmer*** (26) "Lab Experiences That Demonstrate the Ingenious Design of the Human Body"	**Jessica Neamtu** (26) "Euthanasia: How Safe Are Our Safeguards?"
4:15 PM	**Peter Story** (27) "Defending Municipal Utilities Against Cyberattacks"		**Ciara Reyes-Ton** (27) "Early Childhood and Spiritual Formation: Science and the Arts"	**Mark A. Strand*** (27) "The Incongruity of Public Health in a Hyper-Individualistic Society"
5:00 PM–6:00 PM	Dinner Dinner Meet-Up: **Canadian Scientific and Christian Affiliation (CSCA)**			Lane Student Center Chesters
5:30 PM	Sand Volleyball and Softball Organized by **Dominic Halsmer*** and **Vicki Best**			Sand Court outside Bromley Softball field behind the Bennett Center
7:30 PM	State of the ASA Presenters: **Janel Curry,*** **Vicki Best**, and **Mike Beidler*** Offering supports the **Student Scholarship Fund**			KOSC MacDonald Auditorium
9:00 PM	Ice Cream Social | InterVarsity Reception			KOSC Loggia

We are grateful for our partnership with InterVarsity's Emerging Scholars Network (part of Graduate & Faculty Ministries) for co-sponsoring the ice cream social.

InterVarsity
EMERGING SCHOLARS NETWORK

Congratulations to our VIPs, Long-Time Member Attendees!

We appreciate your faithful commitment to the ASA.

65 years
Richard T. Wright

61 years
L. William Yoder

57 years
David A. Saunders

51 years
Kurt Wood

54 years
Gordon E. Fish

52 years
Paul T. Arveson
Sidney Niemeyer
John R. Wood

50 years
Randy Isaac
Bruce W. Schweitzer

49 years
Edward B. Davis
William M. Jordan

48 years
Kirk J. Bertsche
Robert Kaita

46 years
Ronald V. Hodges
Timothy P. Wallace

44 years
Keith B. Miller

42 years
Stephen O. Moshier

41 years
Brian T. Greuel

40 years
Ruth Douglas Miller

Monday, 27 July 2026			
6:00 AM	Morning run, led by **Dominic Halsmer***		Meet in front of Lane Student Center
	Early bird walk around Coy Pond —self-directed		Meet behind Lane Student Center
7:00 AM–8:30 AM	Breakfast		Lane Student Center
	Breakfast Meet-Up: **Engineers** —All engineers are invited		Chesters
8:15 AM	**Devotions** Worship Leaders: **Ciara Reyes-Ton** and **Angie Thoelen** Devotional: **Amy Dykstra***		KOSC MacDonald Auditorium
8:45 AM–9:45 AM	**Plenary V** **Kaye Cook**, "From Rupture to Reconciliation: A Relational Systems Model of Divine Forgiveness" Moderator: **Louise Huang***		KOSC MacDonald Auditorium (11)
9:45 AM–11:45 AM	Exhibit Tables		KOSC Chairman's Room
9:45 AM	Beverage Break		KOSC Loggia
10:15 AM–11:45 AM	**VI.A. Theology and Humanities 4** –KOSC MacDonald Moderator: **Darren Craig***	**VI.B. Theology and Humanities 5** –Fowler Moderator: **Tim Wallace***	**VI.C. Affiliates and Local Chapters** –KOSC 214 Moderator: **Dana Oleskiewicz**
10:15 AM	**Carl Fictorie*** (28) "Flipping the Script: Emphasizing God's Faithfulness as the Foundation for Empirical Sciences"	**Amaya de Vin** and **Jennifer Boone** (28) "Creation's Calling: Theology of Place"	**Dana Oleskiewicz** (28–30) "Dialog with ASA Affiliations and Chapters to Strengthen Outreach Efforts" Panel discussion Panelists: • **Katy Hinman**, American Association for the Advancement of Science (DoSER) • **Angie Cornwell**, ASA Chapter Faculty Advisor • **Karma Carrier**, ASA Marketing Committee • **Kathy Sperounis**, ASA Marketing & Communications Small group discussions
10:45 AM	**Jim Green** (29) "The Great Divide of 1925"	**David B. Robbins** (29) "Review of Nearly Seventy-Five Years of ASA Literature About Noah's Flood"	
11:15 AM	**Victoria Campbell** (30) "A New Understanding of Genesis 1–3 and Its Ethical Implications for Society"	**Film showing** Origins: Faith & Science	
12:00 PM–1:00 PM	Lunch Lunch Meet-Up: Join **Vicki** and **Janel** to learn more about "leaving a legacy"		Lane Student Center President's Dining Room
1:00 PM–5:00 PM	Field Trip 5: MIT Museum		Meet at Chapel Loop
1:00 PM–5:00 PM	Field Trip 6: Birding on Plum Island, led by **Richard Wright***		Meet at Chapel Loop
2:00 PM	Registration table closes		KOSC Loggia
6:00 PM–8:30 PM	Field Trip 7: CWiS Dinner —Women and Men Are Welcome		Vicki Best's house

PLEASE NOTE: Number within the parentheses is the page number for the abstract.
**ASA Fellow*

Plenary I — **KOSC MacDonald Auditorium**
Friday, 24 July 2026 — **7:30 PM**

Steaks and Salads, Diets and Desserts: Gender, Food, and Getting the Bodies We Think We Want

Fellipe do Vale

"Whenever you see a fat Christian, you're looking at a [person] who is not walking with the Lord." So wrote C. S. Lovett in 1977, giving voice to a basic conviction held by many today: If we can diet successfully, we can achieve the bodies we want. The desirability of that body, moreover, often has gendered and spiritual overtones, something corroborated by weight loss groups commonly hosted in churches.

This talk will give a theological analysis of the state of affairs. I will argue that this is a problematic moral vision for food which I call "caloric Pelagianism": There is intrinsically good food and intrinsically bad food, and the goodness of one's eating can be measured by the size of one's waistline. The choice between good and bad, moreover, is entirely within our resources to decide. Caloric Pelagianism, however, is not a form of service to the body of Christ.

I will raise two objections to caloric Pelagianism. First, there is a good biological and psychological reason to think that diets do not work. Instead, humans have a "set point" for our weight which is remarkably difficult to live outside of. Second, diet culture has made two mistakes regarding the nature of sin: (1) that it is an intrinsic feature of creatures, and (2) that gluttony is dieting's opposite.

I will then offer an alternative proposal: not body positivity, necessarily, but a body "okayness" that approaches our bodies with compassion and the food around us as God's gift.

Fellipe do Vale (PhD, Southern Methodist University) is a tutor in doctrine and ethics at Trinity College, Bristol, UK, where he teaches and supervises doctoral students. He is the author of Gender as Love: A Theological Account of Human Identity, Embodied Desire, and Our Social Worlds *(Baker Academic, 2023) and the forthcoming* Living a Theology of Gender: How to Love Our Gendered World *(Baker Academic, 2026). He has also published articles in the* International Journal of Systematic Theology, Philosophia Christi, Pro Ecclesia, *and other journals.*

Fellipe's research is on the connection between moral theology and theological anthropology, with a main focus on understanding gender. He is also the winner of the 2023 "Emerging Public Intellectual" award, given by Redeemer University.

Fellipe lives in Bristol, England, with his family.

Plenary II — **KOSC MacDonald Auditorium**
Saturday, 25 July 2026 — **8:45 AM**

Vitiligo Treatment from the Bronze Age to the Age of Biologics: New Hope for an ancient Disease

John Harris

Vitiligo was described 3,400 years ago in ancient Egyptian and Indian texts, and the social stigma associated with this disfiguring disease was evident from the very beginning. Vitiligo is a common autoimmune disease of the skin characterized by the appearance of white spots that result from the elimination of melanocytes by T cells.

We determined that IFNG (Interferon Gamma) drives vitiligo progression through chemokines that promote T cell recruitment into the skin. Clinical trials demonstrated that JAK inhibitors that block IFNG signaling are effective treatments for vitiligo, resulting in the first FDA-approved treatment in 2022. However, treatment responses from either conventional therapies or JAK inhibitors are not durable, with relapses frequently occurring shortly after discontinuing treatment.

We discovered that autoreactive resident memory T cells are responsible for disease relapse and require IL-15 for their maintenance. Targeting IL-15 signaling reverses vitiligo with long-lasting results, and a drug targeting the IL-15 receptor that we developed is in Phase 1 clinical trials, potentially representing a promising, and durable, treatment strategy for patients with vitiligo.

Discovery of new signaling pathways in vitiligo using high-resolution multiomics has revealed additional opportunities to develop targeted treatments. Finally, novel drug targeting strategies that we developed, including RNAi delivery and skin-tethering of bispecific antibodies provide exciting strategic approaches to treat this psychologically devastating disease.

John E. Harris, MD, PhD, was recently named the inaugural Chair of Dermatology at the newly formed Mass General Brigham (MGB) Hospital, a merger of the existing Mass General Hospital and Brigham and Women's Hospital in the Harvard system. He transitioned from his previous position as Chair of Dermatology at UMass Chan Medical School on November 1, 2025.

John is a dermatologist and physician-scientist, caring for patients in a vitiligo specialty clinic and running a research laboratory focused on understanding disease pathogenesis and developing new treatments. His group integrates basic, translational, and clinical research strategies to accomplish this. As a result, clinical trials in vitiligo have shown success.

John founded Villaris Therapeutics (acquired by Incyte in 2022) and four other companies to develop treatments for inflammatory skin diseases; these were merged into Alys Pharmaceuticals. He serves as Chief Innovation Officer for Alys, which has two clinical-stage programs as well as multiple preclinical programs in development.

Plenary III | **KOSC MacDonald Auditorium**
Saturday, 25 July 2026 | **7:45 PM**

The Parable of the Talents, Revisited: Faithful Innovation in an Age of Intelligent Machines

Jimmy Lin

In the Parable of the Talents (Matthew 25), there is little room for comfortable neutrality. The first servant who buried his talent was not lazy, but fearful. The response from the master to that fear was not sympathy but rebuke. In contrast, the faithful servants took genuine risks, entered the marketplace, and brought back more than they were given.

Artificial intelligence (AI) presents the church with precisely this kind of test. AI is already accelerating drug discovery, reshaping access to education, and connecting under-resourced communities with opportunity. Ceding that entire field to developers who operate without any moral framework, out of some instinct toward safety, is exactly the kind of burial the parable warns against. However, the parable does not point to naivety. Reckless unbridled adoption serves no one.

AI systems can concentrate enormous power in very few hands, and the displacement of meaningful human labor is not hypothetical; it is already underway. Automation bias distorts high-stakes decisions. And there is a subtler temptation still: outsourcing moral judgment to systems that optimize for efficiency rather than wisdom. What is a faithful path between burial and recklessness? How can we shepherd AI toward human flourishing while balancing the threats if we are not careful? The Master expects a return. He also expects wisdom.

In his role as Freenome's Chief Scientific Officer, Jimmy Lin is responsible for scientific strategy, research operations, and growth of the company's world-class scientific team. He brings a proven record of translating cutting-edge research into commercial success, with a focus on the development and launch of blood-based assays for cancer monitoring and detection of molecular residual disease.

Prior to joining the private sector as chief scientific officer for oncology at Natera, the global genomic diagnostics company, Jimmy led the intramural clinical genomics program at the National Cancer Institute at the National Institutes of Health. At Johns Hopkins University and Washington University in St. Louis, he spearheaded the computational analyses of the first-ever exome sequencing studies in multiple cancer types.

Jimmy holds an MD and a PhD in cellular and molecular medicine from Johns Hopkins School of Medicine, as well as a Master of Health Sciences in bioinformatics from Johns Hopkins School of Public Health. As an undergraduate at Yale University, he majored in cognitive science and molecular biophysics and in biochemistry. Jimmy was a 2016 Senior TED Fellow and is the founder and president of the Rare Genomics Institute.

Worship | **KOSC MacDonald Auditorium**
Sunday, 26 July 2026 | **9:30 AM**

Sunday Preacher

Sean McDonough

Sean McDonough is the Mary French Rockefeller Distinguished Professor of New Testament at Gordon-Conwell Theological Seminary in Wenham, MA. Previously he served as the chair of the Department of Biblical Studies and as a lecturer in New Testament at Pacific Theological College in Suva, Fiji.

Sean remains active in ministry. He is a Sunday School teacher and occasional preacher and elder at First Congregational Church in Hamilton. He is also a speaker for Medair, a Christian relief organization based in Switzerland.

His research interests include creation/cosmology in the Bible and the Ancient Near East, Hellenistic Judaism, Greek philosophy and religion, and the Book of Revelation.

His personal interests include supporting Boston's sports teams, spending time with his family, traveling, and hiking.

ASA 2026 Charity: Global Christian Book Fund

Craig Stoll

Most seminaries in Africa, Asia, and Latin America struggle with library development—the books they need are either not available in their countries or not affordable.

Global Christian Book Fund works to bridge this resource gap by distributing books for international Christian leaders and theological schools, and Bibles for those without access to them. To date we have distributed more than 5.2 million resources to partners in over 120 countries.

This is a great opportunity for ASA members looking to downsize their faith and science libraries and *PSCF* journals.

GLOBAL CHRISTIAN BOOK FUND

Plenary IV | **KOSC MacDonald Auditorium**
Sunday, 26 July 2026 | **11:00 AM**

The Epistemology of Attention: Why Theologians and Scientists May Have Never Had More in Common

Romanita Hairston

We have been told that faith and science are opposing forces. But this framing obscures a deeper truth: the most faithful theologians and the most rigorous scientists share a fundamental posture—disciplined attention before a reality larger than themselves. Both submit to what they discover. Both know that the willingness to be changed by what is encountered is not merely a method but a source of knowledge itself.

This talk introduces an epistemology of attention: the conviction that how we attend to reality shapes what reality reveals, and that this shared posture is epistemologically generative—producing knowledge, meaning, and ethical clarity that neither discipline achieves alone. The argument unfolds in three movements: The Posture of Inquiry (what theologians and scientists share at the root), Inquiry as Obedience (recovering the search for truth as vocational act), and The Uncommon Alliance (effective pluralism as a framework for co-creation across ways of knowing).

At a moment when ideological sorting threatens both the academy and the church, the bridge between science and faith may be the most consequential leadership opportunity of our time. Grounded in a perspective shaped across the nonprofit, technology, education, and philanthropic sectors—this talk explores the bridge between science and faith integration and synergy. It invites scientists, theologians, and practitioners alike to consider what becomes possible when diverse ways of knowing are held together rather than apart.

As Chief Executive Officer, Romanita Hairston oversees all activities of the M.J. Murdock Charitable Trust. An accomplished team builder, convener, and leader, Romanita draws on more than two decades of experience and service in her leadership and stewardship of the foundation's mission. This includes work in the nonprofit (World Vision), for profit (Microsoft), and philanthropic (Murdock Trust) sectors alongside a consistent commitment to board service (Convergence Center for Policy Resolution, Candid, Global Women, India Partners, Urban Alliance, Urban Impact, Kids in Need, and Impact Latin America) borne out of a desire to engage in her highest and best use.

A graduate of the University of Washington, Romanita earned her MBA from Eastern University (Philadelphia).

Plenary V | **KOSC MacDonald Auditorium**
Monday, 27 July 2026 | **8:45 AM**

From Rupture to Reconciliation: A Relational Systems Model of Divine Forgiveness

Kaye Cook

Across the natural sciences, we study how stable systems respond to disruption. Disturbances activate regulatory processes that move the system back toward equilibrium. This talk asks whether a similar dynamic may be observable in the Christian experience of sin and divine forgiveness. When a believer perceives personal wrongdoing, what psychological processes unfold?

Drawing on the Relational Spirituality Model of Personal Sin, I propose that reconciliation with God can be understood as a relational regulatory system. Perceived wrongdoing disrupts a baseline sense of communion, activating appraisals across the self, God, the wrongdoing, and other people. Two processes appear central to restoration: repentance, an approach-oriented movement back toward God; and perceived absolution, the experience that God is moving toward the believer in forgiveness.

Evidence from multinational qualitative interviews and an incident-anchored longitudinal study suggests that these processes unfold in recognizable patterns. Repentance often rises first, followed by increases in perceived absolution, which, in turn, predict later increases in communion with God. Reconciliation, then, is less a moment of relief than a relational movement—from rupture toward restored communion.

Kaye Cook (PhD, University of North Carolina) is Professor of Psychology and Dean of Psychology and Human Services at Gordon College in Wenham, Massachusetts. A developmental psychologist, she studies moral and religious development across cultures, with particular focus on forgiveness, virtue, and prosocial behavior from early childhood through adulthood. Her work frequently bridges psychology and theology, exploring how cultural and spiritual contexts shape moral growth.

Kaye has served as president of the International Association for Moral Education and as a visiting scholar in multiple international and interdisciplinary settings. Her research has been supported by several Templeton grants and reflects her enduring interest in how people change—across cultures, faiths, and stages of life.

MATHEMATICS AND SCIENCE TEACHING OPPORTUNITIES | 2026–2027 SCHOOL YEAR

Covenant Christian Academy is seeking passionate and qualified educators to join our Upper School faculty for the 2026–2027 school year. We are currently hiring for **full-time Mathematics and Science teaching positions** serving students in grades 9–12.

RHETORIC SCHOOL MATHEMATICS TEACHER

Teaching responsibilities may include a combination of:

- Geometry
- Algebra II
- PreCalculus
- AP Calculus

UPPER SCHOOL SCIENCE TEACHER

Teaching responsibilities may include a combination of:

- Chemistry
- Physics
- Biology
- Other Upper School science courses based on the candidate's experience and the needs of the school

THE IDEAL CANDIDATES WILL:

- Hold a Bachelor's degree in a related field (Master's degree preferred)
- Demonstrate strong content knowledge and effective teaching practices
- Communicate complex concepts clearly and engagingly
- Integrate faith and learning in a thoughtful and natural manner
- Embrace the Classical model of liberal arts education
- Build positive relationships with students, parents, and colleagues
- Desire to help students achieve high academic standards while growing in Christian character

Candidates with additional experience or coursework in related disciplines such as mathematics, computer science, engineering, or robotics are encouraged to apply.

WHY COVENANT CHRISTIAN ACADEMY?

Located in Peabody, Massachusetts, Covenant Christian Academy is an **independent Classical Christian school** serving students in PreK–12. Covenant offers a Christian and Classical education that builds students' academic, spiritual and social foundations for lives of leadership and service in today's global community. A Covenant education prepares students to excel in collegiate studies and intellectual pursuits, nurtures Christian faith and character, and fosters individual gifts and abilities.

This is a unique opportunity to teach highly motivated students in a close-knit Christian school community that values academic excellence, meaningful relationships, and the pursuit of truth through a Classical Christian worldview.

At Covenant, teachers are more than subject matter experts—they are mentors, role models, and partners in shaping students both intellectually and spiritually. Faculty members are encouraged to engage with students beyond the classroom through co-curricular activities and community life, helping cultivate wisdom, virtue, and a lifelong love of learning.

COVENANT
CHRISTIAN ACADEMY

SCAN HERE TO APPLY OR LEARN MORE:

Covenant Christian Academy | 83 Pine St., Peabody, MA 01960 | 978.535.7100 | covenantchristianacademy.org/employment

I.A. Life and Health Sciences 1

KOSC MacDonald

Preventing Smallpox in Colonial Boston: A Medical, Theological, and Ethical Controversy

Sarah M. Richart

Before Edward Jenner's cowpox vaccine in the end of the 18th century, variolation—another method of preventing human smallpox—was used involving the deliberate inoculation of a healthy person with live smallpox matter. Variolation, likely practiced as early as 1000 CE in China, was introduced to the Western world in the 1710s, and this sparked a fierce theological and ethical debate.

Just prior to a smallpox epidemic in Colonial Boston in 1721, Puritan minister Cotton Mather played an unexpected and courageous role, advocating for variolation, and was harshly criticized by prominent Boston physician William Douglass. My research examines the theological responses to variolation, and looks at how Mather and his contemporaries in Boston and England reconciled the use of a risky medical preventative with their faith.

Key themes addressed include (1) the medical ethics of practicing variolation; (2) the nature of disease and God's role in it in a pre-germ theory world; and (3) the clergy-physician divide that was magnified through this controversy. In this story, the conflict between faith and science proved complex, but it serves as an example in which faith played a serious role in scientific risk-taking.

I.B. Faith and STEM Education 1

KOSC Fowler

Chronotype and Quality of Life Among Nurses with Bipolar Disorder

Julianne Armijo, Marie-Anne Rosemberg, Melvin McInnis, Deanna Marriott

This study explores how chronotype, or sleep-wake cycle preference, affects quality of life in nurses with bipolar disorder, addressing research gaps in this understudied population.

This was a secondary, longitudinal, mixed-methods analysis using data from the Heinz C. Prechter Longitudinal Study of Bipolar Disorder. Fifteen nurses with bipolar disorder, major depression, or healthy control were identified. Stata 18 was used for descriptive longitudinal analyses of survey data. University of Michigan GPT 5.2 assisted with analyzing raw free text from Longitudinal Interview Follow-up Evaluation interviews.

We found that later chronotype shifts over time were associated with lower mental and physical scores across diagnoses. Later shifts in chronotype sometimes preceded decreasing mental scores, worse sleep, and depression—even in a healthy control. The physical and mental components of quality of life were sometimes in opposition. Unexpectedly, shift work did not factor into the nurses' experiences.

Chronotype shifts may be prodromal to depression, lower mental quality of life, and worse sleep. More research is needed with larger samples and bipolar-disorder-specific quality of life instruments to allow for inference and capture of additional domains beyond health-related quality of life. Limitations include self-report data and regional sampling.

This study serves God's kingdom by promoting dignity and practical support for individuals with bipolar disorder, while recognizing that treating bipolar disorder in nursing professionals helps them fulfill a Christian call to compassionate stewardship and service modeled by our Lord Jesus Christ and St. Paul.

I.C. Life and Health Sciences 2

KOSC 124

Wisdom Science Collaborative: Building an Innovation Engine for Hunger Resilience During Conflict

Christina Dokter

Wisdom Science Collaborative is a nonprofit organization dedicated to advancing hunger resilience, especially for civilians trapped by war, disaster, and food blockades. Its long-term vision is to create an ethical innovation engine that connects students, scientists, mentors, humanitarian organizations, and governments in a continuous cycle of research and innovation, accelerating the development of breakthrough food solutions for humanitarian impact.

Undergraduate and graduate students study Fourth Industrial Revolution (4IR) biotechnology, nutrition, and related sciences while working in interdisciplinary teams to investigate emerging research, identify knowledge gaps, and contribute innovation briefs to an AI-assisted knowledge base. Scientists then use this growing body of knowledge to develop research agendas and prototype solutions for extreme environments. Potential innovations may include lightweight regenerative foods, compact nutrient-dense products, novel preservation technologies, and other concepts generated through collaborative inquiry.

During the spring semester of 2026, Christina Dokter, together with faculty from Prairie View A&M University and the University of Nigeria, conducted a pilot program in which students learned beyond their own disciplines and synthesized diverse scientific knowledge to propose innovative approaches for civilians affected by conflict.

This presentation describes the origins of Wisdom Science Collaborative, introduces its innovation model, shares preliminary findings from the pilot, and outlines the next phase of development.

I.D. Student/Early Career Track

KOSC 127

Faith & Work for Science: Growing in Your Vocation

Hannah Eagleson and **Joanna Lumbsden-Pinto**, Moderators

Panelists:

- **Jonas Attilus**
- **Megan Behrmann**
- **Marilyn Naeem**
- **Rachel Pryce**
- **Jennifer Wiseman**

Do you want to connect who you are in your science field and who you are as a follower of Christ?

What does it mean to be the whole of yourself, in your life at work and your life of faith?

Come hear from Christians in science across different career stages and field areas. Then workshop your own ideas in small groups by field area.

Cosponsored by InterVarsity's Emerging Scholars Network

I.A. Life and Health Sciences 1 (cont'd)

KOSC MacDonald

Was Copernicus a Heretic? How Inerrancy Enabled Protestants to Answer "No."

W. Scott McCullough

Virtually all Christians today accept a heliocentric planetary system, but many reject or are uneasy with scientific accounts of origins because they seem to contradict the Bible. Most Protestants in the 16th and 17th centuries similarly rejected the annual and diurnal motion of the earth around the sun as contradictory to perception and Scripture. Accumulating evidence, Newton's unifying laws, and the writings of influential Protestants such as John Wesley led to widespread acceptance. Yet doubts remained into the 19th century because Protestants rejected the hermeneutical use of accommodation and the two-book view of revelation. Literal approaches to key texts failed to resolve the differences, prolonging the feeling on the part of ordinary Christians that Copernicanism contradicted the Bible.

Charles Hodge resolved the discrepancies by his 1857 statement of the doctrine of inerrancy, in which he differentiated between the teaching of Scripture and the incidental reflection of the writers' cosmological views. An appreciation of this history and recovery of Hodge's forgotten theological resolution is relevant to scientists, teachers, and students who are navigating modern faith and science controversies.

I.B. Faith and STEM Education 1 (cont'd)

KOSC Fowler

The Great Commission as a Virtuous Cycle: A Systems Lens on Christian Vocation in STEM

Lawrence Hawkins

This presentation offers a vocational framework for understanding Christian participation in STEM by interpreting the Great Commission (Matt. 28:18–20) through the lens of systems thinking and virtuous cycles. Virtuous cycle models, widely used in engineering, education, and organizational theory, describe reinforcing feedback loops in which outputs strengthen inputs and sustain long-term growth. When viewed through this lens, the Great Commission can be understood not merely as a directive for evangelism, but as a dynamic learning system involving initiation, formation, and multiplication.

The talk develops a conceptual mapping between key elements of the Great Commission and processes familiar to scientific and technical communities, such as mentorship, training, and communities of practice. This approach highlights how Christian mission and scientific work share structural features centered on knowledge transfer, formation of competence, and generative continuity. Rather than treating faith and science as competing domains, the model frames them as mutually reinforcing dimensions of Christian vocation.

By applying a systems perspective to both Scripture and STEM practice, this presentation invites scientists and engineers to reflect on how their daily work already participates in cycles of teaching, learning, and service that mirror core aspects of Christian discipleship. The goal is not to prescribe specific programs, but to offer a conceptual lens through which participants may better discern how their own disciplines can function as arenas for faithful presence, intellectual stewardship, and service to a broken world. This framework aims to support a vision of science–faith synergy grounded in vocation strategy.

I.C. Life and Health Sciences 2 (cont'd)

KOSC 124

Fasting as an Adjunct Therapy for Disease Treatment

Jim Painter

Isaiah 58:8 states that fasting will cause a speedy recovery. Recent clinical insights have shifted the perception of fasting from a mere weight-loss tool to a sophisticated metabolic intervention. This presentation explores the efficacy of therapeutic fasting—including intermittent fasting (IF) and periodic fasting-mimicking diets—as an adjunct therapy for chronic and acute pathologies. The primary mechanism driving these benefits is the metabolic switch from glucose utilization to fatty acid-derived ketone body oxidation, which triggers systemic cellular adaptations.

Current research indicates that fasting enhances autophagy, reduces systemic inflammation, and improves insulin sensitivity, making it a potent tool for managing type 2 diabetes and metabolic syndrome. In oncology, fasting leverages differential stress resistance; healthy cells enter a protective, quiescent state, while malignant cells—reliant on high glucose and growth factors—become more susceptible to oxidative stress and chemotherapy.

Fasting-induced neuroprotection shows promise in slowing the progression of neurodegenerative diseases by upregulating brain-derived neurotrophic factor (BDNF). While the "calories in, calories out" model remains relevant for energy balance, the hormetic stress provided by fasting offers a unique biochemical advantage.

Integrating structured fasting into clinical protocols provides a non-pharmacological pathway to enhance treatment efficacy, though personalized application remains essential to ensure nutritional adequacy and patient safety.

I.D. Student/Early Career Track (cont'd)

KOSC 127

Faith & Work for Science: Growing in Your Vocation

Hannah Eagleson and **Joanna Lumbsden-Pinto**, Moderators

Panelists:

- **Jonas Attilus**
- **Megan Behrmann**
- **Marilyn Naeem**
- **Rachel Pryce**
- **Jennifer Wiseman**

Do you want to connect who you are in your science field and who you are as a follower of Christ?

What does it mean to be the whole of yourself, in your life at work and your life of faith?

Come hear from Christians in science across different career stages and field areas. Then workshop your own ideas in small groups by field area.

Cosponsored by InterVarsity's Emerging Scholars Network

I.A. Life and Health Sciences 1 (cont'd)

KOSC MacDonald

True Confessions: What Student Reflections Reveal About Christian Faith Integration in Human Anatomy

Kenneth G. Sossa and Ryan Somers

Faith integration is a defining pedagogical feature of Christian higher education, yet how students theologically interpret discipline-specific learning—particularly in human anatomy—has received limited scholarly attention.

This qualitative study examines how undergraduate students reflect on and integrate Christian faith within a lower-division human anatomy course at a private Christian university. Reflection papers from 44 students were analyzed to identify recurring theological themes and to situate these themes within students' broader academic experience.

Four dominant themes emerged: appreciation of God's design, understanding of God's purpose, reliance on God for strength, and reduced anxiety through trust in God's plan. Students most frequently articulated themes related to design and purpose, while other reflections emphasized faith as a source of perseverance and emotional regulation in a demanding course.

Although this study does not assess causal relationships between faith integration and learning outcomes, the findings suggest that anatomy can function as a meaningful context for theological reflection, motivation, and student formation.

These results invite further interdisciplinary research on faith integration as a dimension of engagement and meaning-making in science education within Christian academic settings.

I.B. Faith and STEM Education 1 (cont'd)

KOSC Fowler

Humble Minds, Discerning Hearts: Trust Formation in AI-Mediated Information Environments

Uhjin Sim

This presentation explores how contemporary digital information environments are reshaping questions of truth, trust, and discernment. As individuals increasingly interact with information produced by generative AI, algorithms, and social media platforms alongside human sources, developing healthy patterns of trust has become a growing challenge.

Drawing on an interdisciplinary literature review in information science, psychology, and education, this work conceptualizes trust formation as a gradual process rather than a binary judgment. It suggests that intellectual humility and critical thinking are complementary dispositions that may support faithful and discerning engagement with complex information environments. The presentation also introduces the next phase of this ongoing research, proposing a qualitative grounded theory study examining how emerging adults develop trust while navigating AI-mediated information.

For the ASA community, this work invites theological reflection on faithful discernment in an age of AI. Scripture calls believers both to "trust in the Lord; do not lean on your own understanding" (Prov. 3:5–6) and to "test everything; hold fast what is good" (1 Thess. 5:21). Rather than treating these as opposing commands, this presentation considers how biblical wisdom may deepen contemporary conversations about trust formation and information evaluation as we increasingly interact with both human and AI-generated sources of knowledge.

I.C. Life and Health Sciences 2 (cont'd)

KOSC 124

The "Daniel Diet"? Biblical and Scientific Perspectives on Nutrition

E. Janet Warren

Nutrition is essential for life, and food is a central biblical concept. Yet, there is much confusion and conflicting information about what we should eat—or, from a Christian perspective, how best we should care for our created bodies.

In this presentation, I first examine biblical teaching on self-care, the meaning of food in the Bible, and what it does and does not teach about food and nutrition. Then I present summaries of commonalities in contemporary dietary recommendations and of evidence for plant-based nutrition in preventing and reversing many chronic diseases, such as diabetes, heart disease, and some cancers.

I offer some context, cautions, and practical considerations in adopting a plant-based diet. Finally, I consider implications of this for glorifying God through responsible stewardship.

I.D. Student/Early Career Track (cont'd)

KOSC 127

Faith & Work for Science: Growing in Your Vocation

Hannah Eagleson and **Joanna Lumbsden-Pinto**, Moderators

Panelists:

- **Jonas Attilus**
- **Megan Behrmann**
- **Marilyn Naeem**
- **Rachel Pryce**
- **Jennifer Wiseman**

Do you want to connect who you are in your science field and who you are as a follower of Christ?

What does it mean to be the whole of yourself, in your life at work and your life of faith?

Come hear from Christians in science across different career stages and field areas. Then workshop your own ideas in small groups by field area.

Cosponsored by InterVarsity's Emerging Scholars Network

II.A. Theology and Humanities 1

KOSC MacDonald

Staying in Conversation: Evangelical Views on Science and Effective Ways to Engage

Deborah Haarsma

Science outreach to Christian audiences faces increasing challenges. While many evangelicals accept consensus scientific findings, this group is more likely than other religious demographics to be skeptical of findings in areas of evolution, vaccination, and climate change. They are also less likely to trust scientists or to see them as working for good in society.

The skepticism arises from biblical concerns, moral concerns, misinformation, siloing, and the extreme politicization of our culture. Yet, researchers have found communication methods that are effective in overcoming barriers and rebuilding trust.

As Christians in science, we can stay in conversation with evangelicals: telling our stories, respecting their questions, and showing how science glorifies God and serves the world.

II.B. Life and Health Sciences 3

KOSC Fowler

Context for Genetics of Adam and Eve?

Fred S. Cannon

What can we discern about the genetics of Adam and Eve? We do not have known access to their skeletons, so as to extract their DNA and map it. However, scientists have devised techniques to extract and map DNA from skeletons as ancient as Adam and Eve. With such techniques, geneticists have mapped the DNA of more than 700 human individuals who lived 6,500–45,000 years ago. Particularly, human DNA has been extracted and mapped from about three dozen individuals who lived 6,500–12,000 years ago within 60–500 miles of the confluence of the rivers Tigris, Euphrates, Gihon (now Karun), and Pishon (now Wadi Al-Batan).

Genesis 2:10–14 describes Eden as near this confluence. Could Adam and Eve have had genetics that were similar to these close neighbors of the same time frame?

My presentation will convey Principal Components Analyses (PCA) of ancient DNA, with focus on a nearby 10,000 year-ago archaeological site, Ganj Derah, Iran. Scientists have mapped the DNA of six Ganj Derah skeletons, and compared this DNA with that of ancient and recent humans throughout Eurasia. Numerous paleo-geneticists are recognizing that humans of the Persian Valley and Persian Plateau from 6,500–45,000 years ago may have offered a very important component to the genetic heritage of numerous subsequent populations.

We will also explore the broad-brushed meanings of the biblical Hebrew words "*kol*" (all/each/every/any) and "*hayy*" (living/tribe), in light of *hayy* being an indeterminate word. These two Hebrew words are used in Genesis 3:20, which states that *"Eve was the mother of kol-each/every/all/any hayy-living/tribe."*

II.C. Physical and Environmental Sciences 1

KOSC 124

Structure–Activity Relationships of Tryptamine Derivatives at Serotonin Receptors: Chemical Characterization for Mental Health Research

Marilyn Naeem

Mental health disorders such as anxiety, post-traumatic stress disorder, and addiction continue to pose significant challenges worldwide. Understanding how subtle structural changes influence the interactions of small molecules with serotonin receptors is essential for developing safer and more effective therapeutics.

This research systematically synthesizes and modifies a series of tryptamine derivatives to investigate their structure–activity relationships (SAR). Analytically pure compounds are characterized using nuclear magnetic resonance (NMR) spectroscopy and single-crystal X-ray crystallography, providing reliable structural data to support future biological investigations. By establishing well-characterized chemical frameworks, this work addresses longstanding gaps in understanding the molecular features governing receptor binding and activity.

As Christians, we recognize scientific inquiry as a means of faithfully stewarding the gifts of reason and creativity entrusted by God. Advancing knowledge of compounds with therapeutic potential reflects a commitment to serving others through research that may ultimately contribute to improved treatments for mental illness, promoting human flourishing while glorifying God through excellence in science.

II.D. Faithful Prescence in Graduate School and Industry

KOSC 127

Faithful Presence: What It Looks Like in Practice

Erik Lindquist, moderator

How do faith commitments shape the way we prepare for and pursue careers in science?

This workshop equips undergraduate students to think faithfully about their next steps—whether graduate school, professional careers, or vocational discernment in research, healthcare, education, and environmental work.

The session opens with a moderated panelist conversation among ASA Fellows and Christian professionals, then moves into two rounds of small-group roundtables: first with career/discipline mentors who share practical wisdom from their fields, then with graduate peers who offer candid, near-peer perspective on applications, program life, and sustaining faith through the transition.

Students will leave with concrete next steps, new mentoring relationships, and a deeper sense of calling.

II.A. Theology and Humanities 1 (cont'd)

KOSC MacDonald

Genetic Variation, Health, and the Limits of Prediction

Tony Jelsma

Despite two decades of intensive analysis of human genome variation, this growing body of knowledge has not translated into dramatic improvements in human health. Direct-to-consumer genetic testing companies such as 23andMe have failed to gain traction with the general public, and although the field of genetic counseling is expanding rapidly, it faces significant challenges in interpreting results and predicting outcomes.

Genome-wide association studies have revealed that most common health conditions are influenced by numerous genetic variants, each with only a small effect. While human genomes show extensive variation, their significance for health and disease remains uncertain. Moreover, the phenotypic effects of genetic variants are strongly shaped by epigenetic regulation and environmental context, underscoring the growing recognition that the genome is not a simple blueprint for life. These uncertainties became personally meaningful to me within the past year, when I learned that I carry a potentially lethal cardiac mutation despite being in good health.

In this presentation, I will describe my personal situation, examine the limitations of using genetic information to predict health outcomes, discuss the challenges facing genetic testing, and reflect on how Christians can use genetic knowledge with wisdom and discernment.

II.B. Life and Health Sciences 3 (cont'd)

KOSC Fowler

Biology Doesn't Obey Mathematics. Biology Creates Mathematics

Perry Marshall

For four centuries, science has endeavored to reduce everything to mathematical laws. Eugene Wigner celebrated mathematics's "unreasonable effectiveness" in physics. But biology has stubbornly resisted, and our work proves why it must.

Living systems don't just solve equations. They generate new mathematics. Axioms cannot deduce themselves; they require choice. Codes cannot emerge from chemistry alone; they require cognitive agents who assign meaning to symbols. This isn't a gap in current knowledge, but a mathematical proof. Using Gödel, Turing, and Shannon, we demonstrate that causation in biology is cognition→code→chemicals, never the reverse.

This inverts the foundational assumption of modern biology. Information doesn't flow from matter to mind. Mind (agency, choice, negentropy) precedes and creates codes, which control matter. All cells exercise cognition: sensing, interpreting, deciding. Barbara McClintock's plants, planarian regeneration, and cancer evolution are not strictly algorithmic. They are volitional responses to undecidable propositions.

The implications cascade. Biology isn't "sophisticated physics." It operates in a fundamentally different domain, where creativity, purpose, and genuine choice are not illusions but the very essence of life. Science must not only abandon its reductionist dream; the discipline itself must be redefined.

This opens possibilities that materialism sealed shut agency, free will, love as more than neurochemistry, and divine action are ontologically possible. If cognition transcends computation, we inhabit a universe where intentionality is woven into the fabric of reality itself, a cosmos that has been gifted the capacity to think and choose.

II.C. Physical and Environmental Sciences 1 (cont'd)

KOSC 124

The Intersection of Plate and Salt Tectonics: The Impact on Life

Robert Strauss

Throughout geologic time, God has created processes that have formed and shaped our planet through the integration of many of the spheres within the earth system. This includes the deposition of evaporitic deposits along with the deformation of those deposits (salt tectonics) creating complex salt systems that have trapped abundant energy resources and have driven the direction of evolution. These salt deposits are often a result of changes in both eustacy and tectonic forces.

Metaphorically, God has also used salt to highlight the process of purification and effectiveness in the life of believers. This is because all of us can relate to the fact that salt is ubiquitous not only in deposits on Earth but also within all biological systems.

We will review salt systems both within the Mediterranean Sea Basin and the deepwater Gulf of Mexico and look at the beauty, complexity, and functionality of the processes that both humans and God take delight in. Ironically, we find that throughout geologic time, God has delighted in the formation of the processes and the creation of the foundation of the Earth as an artist rather than as an engineer.

II.D. Faithful Prescence in Graduate School and Industry(cont'd)

KOSC 127

Learning from Those Who've Walked the Path

Erik Lindquist, moderator

How do faith commitments shape the way we prepare for and pursue careers in science?

This workshop equips undergraduate students to think faithfully about their next steps—whether graduate school, professional careers, or vocational discernment in research, healthcare, education, and environmental work.

The session opens with a moderated panelist conversation among ASA Fellows and Christian professionals, then moves into two rounds of small-group roundtables: first with career/discipline mentors who share practical wisdom from their fields, then with graduate peers who offer candid, near-peer perspective on applications, program life, and sustaining faith through the transition.

Students will leave with concrete next steps, new mentoring relationships, and a deeper sense of calling.

II.A. Theology and Humanities 1 (cont'd)

KOSC MacDonald

Increasing Gender Literacy by Listening to Gender Diverse Young People: What Would Jesus Do?

Dana Oleskiewicz

The gender diverse community as intersex, gender nonbinary, and transgender people is well established in literature as a human subpopulation within cultures worldwide and throughout history. Gender literacy is the ability to think deeply about gender to respectively acknowledge all gender differences. It involves personal reflection on constructed narratives, realizing the historical, social, and religious context of various perspectives.

Gender critical social attitudes support cis-normativity as a systemic advantage afforded to cisgender people who identify comfortably as gender binary, either man or woman, whereas gender affirming perspectives are inclusive of gender diverse people. Cis-normativity privileges neurotypical genders as the majority population, thus reproducing social exclusion and harsh treatment toward the gender diverse minority.

A society hostile toward gender diverse people contributes to minority stress, increases suicide ideation, reduces personal rights and well-being, manifests as a social moral panic, and has caused a diaspora of families seeking sanctuary from a worldwide cultural eradication. Justification for gender critical approaches is argued as being protective of gender diverse people according to a Divine natural order and yet scientific evidence does not support this conclusion.

Personal stories provide insight toward increasing gender literacy in schools and churches. This presentation offers an overview of historical and contemporary childhood development research. It will explore a marginalized population during a time of regressive and harmful state and national policies, experienced as a sociopolitical moral panic negatively targeting the gender diverse population.

II.B. Life and Health Sciences 3 (cont'd)

KOSC Fowler

Inheritance, not Evolution, Is the Fundamental Principle of Life

Sy Garte

Since the *Origin of Species*, it has been known that evolution depends on what Darwin called the "strong principle of inheritance." Highly accurate replication of cellular phenotype is a universal and unique phenomenon in all of life since LUCA. The absence of a system for accurate replication of cellular phenotype makes evolution by natural selection impossible.

Using the simple mathematics of evolutionary theory, it can be demonstrated that the degree of self-replication accuracy must be greater than a threshold related to the selection coefficients of the alleles in a population in order for evolution to occur. Once this requirement is met, evolution follows automatically, assuming accuracy less than 100%.

Evolution ($\Delta p = p_n - p_{n-1} > 0$, where p is the favored allele) requires accurate replication greater than a function of the selection coefficient of a favored new allele, and it will automatically occur given any probability of such replication <1.0.

$$\frac{p_n = p_{n-1}(F - (1\text{-}s))}{(1 - s)}$$

$\Delta p > 0$ if F > 1- s

$\Delta p \leq 0$ if F ≥ 1- s

The threshold for the value of F, the fidelity of replication, is equal to 1-s, where s is the selection coefficient for the favored allele. The highly accurate replication of cellular phenotype is both necessary and sufficient for the origin of evolution.

In the grand scheme of the underlying foundational principle of life, we can conclude that high-accuracy phenotypic self-replication, rather than evolution, is primary.

II.C. Physical and Environmental Sciences 1 (cont'd)

KOSC 124

Using Engineering to Glorify God and Serve the World

William Jordan

Good engineering has dramatically changed our modern world for the better. However, bad engineering can cause great damage. An example of this is the collapse in 1940 of the Tacoma Narrows bridge after being in use for only four months. Christian engineers in particular have an obligation to do good with their work.

Some examples of ways Christian engineers can impact their profession (and the world) are the following:

- Personally work ethically and competently.
- Work on continuing education through professional societies, such as ASME and IEEE.
- Work with State Boards of Registration promoting ethical and professional practice.
- Work with state educational regulatory bodies that control the maximum number of hours an engineering curriculum can have.
- Work with the engineering accreditation agency, ABET. An example is the recent creation of an ABET program criteria for Mechatronics Engineering. Another example is to become an ABET Program Evaluator who helps assess individual academic programs.
- Help engineering deal with new and controversial topics such as sustainability, diversity, equity, and inclusion.

There are ways that Christian engineers can have a positive impact upon their profession as we help it deal with some of these issues. For example, sustainable engineering is very consistent with Christian faith as we attempt to create a world that will provide enough for all forever.

Diversity is something Christians should embrace. From the Bible we know that at the end of time there will be believers from "every tongue, tribe, and nation."

II.D. Faithful Prescence in Graduate School and Industry(cont'd)

KOSC 127

Real Talk from Those Just Ahead of You

Erik Lindquist, moderator

How do faith commitments shape the way we prepare for and pursue careers in science?

This workshop equips undergraduate students to think faithfully about their next steps—whether graduate school, professional careers, or vocational discernment in research, healthcare, education, and environmental work.

The session opens with a moderated panelist conversation among ASA Fellows and Christian professionals, then moves into two rounds of small-group roundtables: first with career/discipline mentors who share practical wisdom from their fields, then with graduate peers who offer candid, near-peer perspective on applications, program life, and sustaining faith through the transition.

Students will leave with concrete next steps, new mentoring relationships, and a deeper sense of calling.

III.A. Theology and Humanities 2

KOSC MacDonald

Universal-Sounding Language in the Early Chapters of Genesis

William Horst

My presentation will argue that universal-sounding language in the early chapters of Genesis (i.e., language such as "the earth" or "the world") is sufficiently flexible that it can potentially be understood in reference to a particular region rather than the whole globe.

Furthermore, the fact that Genesis is, first and foremost, authored to be a book for the people of Israel and a record of Israel's "backstory," means it would not be a foreign imposition on the text to imagine that it would focus, in particular, on the region of the world most pertinent to Israel's history.

When it comes to passages such as the Great Flood or the Tower of Babel, this ambiguity does much to accommodate a non-global, non-universal reading that is more consistent with mainstream consenses in the fields of hydrology, geology, anthropology, linguistics, etc.

III.B. Behavorial Sciences

KOSC Fowler

The Science of Pride and Humility: Biblical Wisdom for a Broken World

Steven J. Willing

Why do people fight so much? In a world fractured by political polarization, misinformation, and tribal conflict, this question demands answers. Scripture identifies pride as "the first sin" and the root of human moral failure. Contemporary research now provides extensive empirical validation for this biblical insight, demonstrating how pride operates as both a moral failing and a cognitive distortion, and how Christians are uniquely positioned to address the divisions plaguing contemporary society.

Drawing on over 140 peer-reviewed studies from psychology, neuroscience, and social science, this presentation explores how research confirms biblical warnings about pride across multiple domains. Studies consistently show humans systematically overestimate their abilities, inflate their moral qualities, and maintain illusions of control—directly validating Proverbs 21:2: *"Every way of a man is right in his own eyes."*

The Dunning-Kruger effect reveals that the least competent are most overconfident. Research on confirmation bias, motivated reasoning, and the planning fallacy validates Scripture's teaching about our compromised capacity for truth-discernment. Studies on in-group bias and fundamental attribution error demonstrate how pride fuels interpersonal and political divisions.

Conversely, research shows humility improves decision-making, openness to evidence, and relationships—aligning with scriptural promises that "God gives grace to the humble" and "with humility comes wisdom."

This science-faith synergy offers Christians a framework for serving a broken world. By recognizing the distinctive hallmarks of pride, believers can model humility in apologetics, discipleship, and public witness—reflecting Christ's light through both rigorous truth-seeking and humble acknowledgment of our own personal limitations.

III.C. Humanities and Faith

KOSC 127

Science as a Lens for Seeing Light in Scripture

Darren Craig

From the opening verses of Genesis to the final chapter of Revelation, light is a part of the biblical story. Johannes Kepler believed that science provides an additional "penetrating vision" that enables the scientist to worship God more deeply when pondering his creation.

In this talk, I will explore how a scientific perspective on light and optics can similarly enable deeper reverence and meaning when a physicist reads scripture. Three examples will be discussed.

First, polished metal mirrors were one of the earliest ways of manipulating light to form images, and many ancient mirrors were rare treasures. Such mirrors appear in Exodus 38:8 where a group of women offer their bronze mirrors for the construction of the tabernacle, demonstrating great sacrifice in a period where opportunities to see one's reflection were sparse.

A second example is the transfer of heat by radiation which manifests in John 18:18 when Peter warms himself by a fire during Jesus's trial. Jesus, the sustainer of the natural laws that govern radiative heat transport, faithfully sustains these processes on Peter's behalf while Peter is denying him. What grace!

Finally, starlight has inspired people for millennia and the night sky we observe today is largely the same one Abraham, David, and Paul saw in their day. Reading Genesis 15:5–6, Psalm 8:3–4, and 1 Corinthians 15:41–42 under the stars can transport us back to their time and, with the help of science, see and feel even more of what they felt.

III.D. Lightning Talks: AI and Tech 1

KOSC 214

AI and Tech Lightning Talks 1

Hosts: **Hannah Eagleson** and the Affiliation of Christians in AI

Join Us for Year 2
of This New
ASA Session Format!

Our goals are to connect participants with ASA affiliate groups or networks, share models for connecting faith and your field, and start rich discussions that will last long beyond the session.

This session will feature

- several lightning talks modelling ways to connect faith & work in AI and other technology fields,
- small group discussions to grow the conversation, and
- a closing Q&A to ask speakers some of the new questions that come up in discussion.

III.A. Theology and Humanities 2 (cont'd)

KOSC MacDonald

The Spiritual Journey of *Homo Sapiens*—Part 2

Jim Stump

Last summer at ASA 2025, I introduced the first half of my book-in-progress, *The Spiritual Journey of* Homo Sapiens. Since then the manuscript has been submitted and is now in production, with release planned for after the new year.

In this follow-up talk, I move to the last three movements of the book—feeling, choosing, and loving—and ask how these capacities emerged from our animal past yet became something qualitatively new in the human context.

Part V ("Feeling") treats emotion not as the enemy of reason but as a kind of perception: the way creatures like us register value, danger, attachment, and meaning.

Part VI ("Choosing") turns to moral responsibility and the hard question of freedom in a world describable in causal terms, engaging recent neuroscience and philosophy while insisting that reasons are not reducible to causes.

Part VII ("Loving") argues that love is a meta-capacity: it shapes what we desire, widens who we count as "us," and can be scaled up by practices and institutions that help our concern travel farther than our instincts would allow.

I will indirectly show how other disciplines can glorify God and serve the world, by directly showing how our species developed the capacities to glorify God and serve the world.

III.B. Behavorial Sciences (cont'd)

KOSC Fowler

From Detection to Resolution: How Children and Adults Negotiate Conflicting Moral Concerns

Rob Ethan Santiago
and Dr. Audun Dahl

Most people care about integrity, fairness, and respect for authority, and these concerns are endorsed in Christian scriptures (Leviticus 19, James 2, Colossians 3). Yet, concrete situations often put moral principles in tension with one another. Should one lie to save a life? Is forgiving a student who cheats fair to others? What happens when an authority asks me to do something bad?

This work in developmental psychology examines how children and adults learn to negotiate these moral complexities. In two studies, we examined how people come to *detect* and *resolve* conflicts in moral dilemmas.

In Study 1, we observed variation in conflict detection: adults (N = 100) did not always detect conflict in high-complexity dilemmas. Adults who did detect conflict were more likely to feel satisfied with solutions that explicitly addressed both sides (p = .015). In Study 2, adults (N = 60) made more exceptions to general moral principles in high-complexity than low-complexity situations (p <.001). With age, children (3–8-year-olds, N = 60) increasingly made exceptions (p = .008).

These findings shed light on how people resolve moral dilemmas. They raise questions for Christians attempting to navigate conflicting faith-based obligations (including truth-telling, forgiving others, and obeying parents). People of finite knowledge make good faith attempts to adjudicate high-complexity situations, which leads to disagreement. Christians must take this into account when thinking about how to teach their children, and how to navigate disagreement within the church and beyond (cf. 1 Corinthians, Ephesians).

III.C. Humanities and Faith (cont'd)

KOSC 127

From Medieval Faith to Modern Biology: Nicholas of Cusa and the Extended Evolutionary Synthesis

Seth Hart

In the last line of his work *Life Finds a Way*, famed biologist Andreas Wagner writes, "The thirteenth century theologian Thomas Aquinas was onto something when he wrote that God created the world in play." Wagner's contention was not specifically theological but rather concerned the emerging evidence that evolution itself might be regarded as genuinely creative.

While the Modern Synthesis has been the standard understanding of Darwinian evolution for most of the 20th century, the growing popularity of its replacement, the Extended Evolutionary Synthesis (EES), demonstrates that the Modern Synthesis may have been far too reductionistic. What was missing, I will argue, was the creative agency of living organisms.

In this talk, I will briefly sketch the thought of some contemporary biologists and philosophers of biology to highlight this shift in scientific understanding before placing their conclusions in conversation with the Medieval Christian theologian Nicholas of Cusa. I argue that recent advances in biology suggest a reevaluation of this Christian figure, as his theological framework may serve as a key to developing a Christian theology of evolution and understanding the role of creaturely co-creation within the process.

III.D. Lightning Talks: AI and Tech 1 (cont'd)

KOSC 214

AI and Tech Lightning Talks 1

Hosts: **Hannah Eagleson** and the Affiliation of Christians in AI

Join Us for Year 2
of This New
ASA Session Format!

Our goals are to connect participants with ASA affiliate groups or networks, share models for connecting faith and your field, and start rich discussions that will last long beyond the session.

This session will feature

- several lightning talks modelling ways to connect faith & work in AI and other technology fields,
- small group discussions to grow the conversation, and
- a closing Q&A to ask speakers some of the new questions that come up in discussion.

III.A. Theology and Humanities 2 (cont'd)

KOSC MacDonald

2026: A Return to the Cold War?

Paul Arveson

My career began in 1963, the same year I became a Christian. I served as a researcher in nuclear submarine R&D. I continued this work until I retired in 1999. I have had a long time to contemplate the ethics and risks of strategic defense.

I will review briefly the history of the Cold War, arms control, and the strategic situation today. I will describe a risk analysis of nuclear war, and its implications for our national defense strategy. I will take the perspective suggested in James 4 about the causes of war—namely, the human heart and its desires. This fact suggests a deterrent strategy that shifts the focus of defense from counting warheads and dreams of an intercontinental ballistic missile (ICBM) defense to understanding the hearts of national leaders.

I do not believe total nuclear disarmament is a realistic goal, but long-term survival is possible if we focus on what leaders want most—their own safety. History shows that deterrence can work—we are still here—but it is a huge economic burden, so deterrence must be just enough. I believe that in a fallen world this is the best we can do until Christ returns.

III.B. Behavorial Sciences (cont'd)

KOSC Fowler

Hear O Israel: The Shema through the Lens of Neuroscience

Dwayne Simmons, Jennifer M. Gash (Baylor University), and Michael Folkerts (Pepperdine University)

In Deuteronomy 6:4–9, Moses prefaces the laws that he delivers to the Israelites with a theological proclamation and framing command commonly known as the "Shema." The Shema teaches the Israelites how to glorify God as an intergenerational community, and through the lens of an emerging neuroscientific understanding; it is also a structured attentional practice that predictively regulates our body in a metabolically efficient manner (allostasis). Therein, hearing is understood not merely as auditory sensation, but also as active listening shaped by attention networks that integrate sensory input, memory, language, and behavior.

This call engages large-scale brain networks, emphasizing selective focus, reorientation, and sustained commitment. The Shema links divine unity with attentional unity. Moses commands the Israelites to love God with a singularly focused, total devotion, which requires employing all of their capacity. Though this command is often understood as containing three separate parts which correspond to different implementations, it is one command: love God with your entire being. This requires writing it on your heart, using attentional networks so that it is encoded and becomes habitual.

Multimodal repetition of the Shema powerfully acts to regulate our brain's sense of uncertainty and decrease the body's metabolic demand. Beginning in childhood, the Shema neuroarchitects the world in a way that titrates uncertainty and strengthens one's transcendent connection with God into adulthood. Practicing the Shema as a community of intergenerational believers allows us to cultivate compassion through loving God together, making us more empathic as our brains interact with each other.

III.C. Humanities and Faith (cont'd)

KOSC 127

Creation, A Choral Work

Ronald V. Hodges

I have written a choral work titled "Creation" for SATB choir, baritone and soprano soloists, and organ. The work pairs Scripture verses with scientific descriptions of origins. There are seven movements: The Big Bang, Stars, DNA, The March of Life, Humanity, Reconciliation, and Praise. The opening of The Big Bang is a quote from Hebrews 11:3, *"By faith we understand that the universe was formed at God's command, so that what is seen was not made out of what was visible."* This is followed by an "explosion" in the organ and the choir singing lyrics about the earliest phases of the universe. The next four movements also start with Scripture followed by scientific descriptions.

The sixth movement, "Reconciliation," concerns the Word and includes a Resurrection "explosion." The Rt Rev. and the Rt Hon. Rowan Williams, past Archbishop of Canterbury, wrote in his book *The Octave of Easter*, "When we celebrate Easter, we are really standing in the middle of a second 'Big Bang,' a tumultuous surge of divine energy as fiery and intense as the very beginning of the universe."

The final movement is a song of praise to the Creator.

The presentation will include a video of the performance of Stars, the second movement.

III.D. Lightning Talks: AI and Tech 1 (cont'd)

KOSC 214

AI and Tech Lightning Talks 1

Hosts: **Hannah Eagleson** and the Affiliation of Christians in AI

Join Us for Year 2 of This New ASA Session Format!

Our goals are to connect participants with ASA affiliate groups or networks, share models for connecting faith and your field, and start rich discussions that will last long beyond the session.

This session will feature

- several lightning talks modelling ways to connect faith & work in AI and other technology fields,
- small group discussions to grow the conversation, and
- a closing Q&A to ask speakers some of the new questions that come up in discussion.

V.A. Physical and Environmental Sciences 2

KOSC MacDonald

Fossil-Fuel-Free Future for Global Energy?

Terry M. Gray

The use of energy sources that do not emit CO_2 (renewables and nuclear) has begun. However, little progress has been made to replace fossil fuels. How do we get to a fossil-fuel-free future? The alternatives are nuclear, biofuels, solar, wind, hydroelectric, and geothermal. Batteries merely store energy.

A future 9 billion people, where everyone uses the same amount of energy as a US person, will need 2700 EJ, four times the world's current energy use (650 EJ). A transition away from fossil fuel use will increase the efficiency of energy production, allowing us to reduce by one-third the total energy estimates to give 1800 EJ (70 EJ for the US).

For the remaining estimates, we will use US numbers only. US *nuclear* production is currently about 8.5 EJ. Goals to double that get us to 17 EJ. Recent papers have estimated future renewable energy production possibilities in the US to be 36 EJ for *wind* and 38 EJ for *solar* energy from the desert southwest alone. *Hydroelectric* production in the US is and will remain at 1 EJ. *Geothermal* will increase 5–10x to 1 EJ, using deeper geothermal sources. Recent estimates of energy from *biofuels* give 16 EJ from forest and agricultural sources. These total to 108 EJ—well over the estimated 70 EJ.

There may be a continued need for hydrocarbon-based fuels (air travel, weather-based emergencies, etc.). These can be produced from CO_2 using chemical methods.

IV.B. Physical and Environmental Sciences 3

KOSC Fowler

Christian NGO Engagement with the Sustainable Development Goals: An Assessment of Strengths and Opportunities

Dorothy Boorse

Christians have been central to many faith-based organization (FBO) efforts to provide relief, development, education, and medical care around the world. This work overlaps with efforts by the UN, international secular nongovernmental organizations (NGOs) and national actors to achieve the Sustainable Development Goals (SDGs). The research of ecologists also supports the SDGs, and partnerships between scientists and faith communities are critical to promoting the SDGs.

In this presentation, I assess Christian NGO involvement in various groups, including those participating at Faith Pavilions at the UN Climate Summits, involved in climate networks, and particularly including youth in climate action. While many FBOs are involved in more traditional poverty alleviation activities, health care, and increasingly in sustainable/climate smart agriculture, fewer are involved directly in issues such as climate change mitigation (SDG13). This pattern shows some opportunities for Christians to meet global needs by joining with others focused on specific SDG solutions, in climate change and other creation care areas.

As an ecologist and Christian, I have an interest in promoting the care of all parts of creation, both human and nonhuman. Collaborating with secular scientists and with other groups to achieve human flourishing gives Christians another way to carry the good news to the world and as scientists, to use our expertise for good.

IV.C. Faith and STEM Education 2

KOSC 124

Glorifying God: The Metaphysical Limitations of Science and Its Implications for Theological Reflection

Finney Premkumar

What do science and especially the laws of physics tell us about the cosmos we inhabit? From Lavoisier's quantitative chemistry experiments that showed the conservation of matter and Faraday's introduction of the notion of forces down to Einstein's theories of special and general relativity, science seems to provide a special sort of privileged access to reality.

However, can this access or metaphysical reach, which has been historically assumed, be sustained? Do the deliverances of science really have metaphysical import? In other words, can the "empirical claims" of science lead to "existence claims" or truth such that science can be shown to have the requisite metaphysical or representational power that has customarily been attributed to it? If not, what are the implications for our thinking about the convergence of the human (scientific) and divine (theological) dimensions?

In this presentation, I will discuss the nature of science and its rigorous methodology in an effort to show that it is not necessarily truth-conferring, i.e., it does not get us to what Richard Rorty called a "final vocabulary" or reality. While satisfaction of a given theory by the rules of method might warrant acceptance of the theory, it is not thereby truth-conferring since its confirmation does not explain why it conduces to truth in a non-epistemic sense.

Without undermining or displacing the importance of science, I wish to provide examples and models of how this modified vision of science can profitably glorify God by offering rich theological reflection in the context of scientific limitations.

IV.D. Lightning Talks: AI and Tech 2

KOSC 214

AI and Tech Lightning Talks 2

Hosts: **Hannah Eagleson** and the Affiliation of Christians in AI

Continue the conversation on AI and tech in our second lightning talks session.

Our goals are to connect participants with ASA affiliate groups or networks, share models for connecting faith and your field, and start rich discussions that will last long beyond the session.

This session will feature

- several lightning talks modelling ways to connect faith & work in AI and other technology fields,
- small group discussions to grow the conversation, and
- a closing Q&A to ask speakers some of the new questions that come up in discussion.

IV.A. Physical and Environmental Sciences 2 (cont'd)

KOSC MacDonald

From Ashes to Renewal: Fire Ecology as Window into Divine Restoration

Joanna Lumbsden-Pinto

Fire is a fundamental ecological process shaping vegetation structure, nutrient cycling, and species composition in many ecosystems. In fire-adapted systems such as the Pine Barrens where my research is focused, I document a paradoxical pattern: abundant seedling establishment coexists with critical recruitment failures at later life stages, creating hidden demographic bottlenecks with profound implications for population persistence. Rather than causing uniform regeneration declines as conventionally assumed, fire absence produces stage-specific, nonlinear effects that are not immediately apparent. These ecological patterns of death leading to renewed life invite theological reflection on themes of refining, transformation, and restoration central to Christian spiritual formation.

Drawing on T. F. Torrance's theology of creation and contingent order, I propose that ecological fire regimes can serve as analogies that illuminate God's renewing presence in both natural and spiritual realms without forcing science into theological claims it cannot bear. Torrance's emphasis on divine wisdom working through natural processes provides conceptual space for faith-informed science that respects disciplinary boundaries while encouraging integrative imagination.

The ecological reality that forests require periodic disturbance to maintain health parallels spiritual traditions that recognize suffering and refinement as pathways to deeper faith and renewed purpose. In addition, insights from eco-theology, particularly scholarship addressing stewardship and renewal in creation care, help frame how the natural world itself teaches resilience, hope, and dependence on processes beyond human control.

IV.B. Physical and Environmental Sciences 3 (cont'd)

KOSC Fowler

Faith Informed Agriculture

Grace Ju Miller and **Joel Fletcher**

Motivated by our faith, we seek to see communities flourish within the food systems they inhabit. This presentation explores the connection between agriculture, agroecology, and food systems, highlighting the synergy between faith and science.

Beginning in Genesis, we see that God gives Adam the mandate to steward the Garden of Eden and expand its flourishing across the earth. This establishes agriculture—and the care of creation—as a primary human responsibility. Through Scripture, farming and food are closely tied to human flourishing. The land, its cultivation, and the provision of food are consistently presented as gifts from God and as essential to sustaining life and community.

There are encouraging examples of restorative agriculture that demonstrate how communities can flourish when farming practices align with ecological principles. Case studies, including those rooted in traditional ecological knowledge (TEK), show how sustainable methods can restore land, strengthen communities, and promote long-term well-being.

IV.C. Faith and STEM Education 2 (cont'd)

KOSC 124

Resilient by Design: Fostering Professional Resilience in Undergraduate Christian Engineers

Kelly J. Vazquez

As Christian engineering faculty, we are consistently striving to prepare our students for the "real world." As such, many undergraduate engineering programs focus curricula on preparing students with the necessary technical expertise to solve complex problems utilizing tools from math and science. Here we target an overlooked competency that is critical for engineering undergraduates to succeed post-graduation: professional resiliency. Prior work has shown that there remains a gap in student understanding of the term and practice of resilience.

It has been shown that students who engage in structured experiential learning beyond the classroom are more prepared for transitioning to the profession. We can also look to scripture for repetitive support that we can foster our inner strength through Christ, and that our faith enables us to be resilient.

We present a proposed framework that begins in the student's first year with an introductory engineering seminar. This course paves the path for student success by providing an overview of the engineering disciplines, professional practices, licensure, and ethics, with a major focus on professional resiliency through the lens of faith. This reflection will include perspectives and discussion of the success of incorporating the topic of Christian professional resilience into curricula.

After successful completion of this program, we aspire that by graduation, students will be (1) prepared for professional endeavors, (2) reflective of personal and professional growth, and (3) demonstrate readiness for real-world challenges. Overall, the framework outlined will develop engineers who are not only skilled practitioners, but also thoughtful Christian leaders committed to serving society with integrity and purpose.

IV.D. Lightning Talks: AI and Tech 2 (cont'd)

KOSC 214

AI and Tech Lightning Talks 2

Hosts: **Hannah Eagleson** and the Affiliation of Christians in AI

Continue the conversation on AI and tech in our second lightning talks session.

Our goals are to connect participants with ASA affiliate groups or networks, share models for connecting faith and your field, and start rich discussions that will last long beyond the session.

This session will feature

- several lightning talks modelling ways to connect faith & work in AI and other technology fields,
- small group discussions to grow the conversation, and
- a closing Q&A to ask speakers some of the new questions that come up in discussion.

IV.A. Physical and Environmental Sciences 2 (cont'd)

KOSC MacDonald

University Campuses As Living Laboratories: Bioacoustics, Avian Biodiversity, and Student Engagement

Islamiat Abidemi Raji

Rapid urbanization is reshaping natural habitats, driving biodiversity loss and reducing opportunities for people to experience nature. Within these expanding urban landscapes, however, university campuses remain important pockets of green space that can support biodiversity while also providing opportunities for experiential learning and conservation engagement. Despite this potential, campus spaces are often under-studied and under-utilized for hands-on ecological training; this is particularly important in regions where undergraduate students have limited exposure to field-based biodiversity research.

University campuses offer a unique dual opportunity: they can function as accessible living laboratories for students while simultaneously generating data to inform local urban conservation decisions. In resource limited contexts, passive acoustic monitoring (PAM) represents a low-cost and effective approach for documenting avian diversity while directly engaging students to become biodiversity conservation ambassadors.

Recognizing this potential, I recruited 13 undergraduate students from three Nigerian universities to participate in a campus-based bioacoustics initiative. Using autonomous recording units, students conducted dawn chorus surveys, collected standardized metadata, and contributed to the first acoustic biodiversity baselines for their respective campuses. For many of the participating students, this project represented their first exposure to ornithology, fieldwork, and conservation technology. Beyond generating baseline biodiversity data that can inform future monitoring, urban planning, conservation policy and management efforts, this initiative also fostered environmental stewardship and helped cultivate the next generation of conservation scientists and leaders.

IV.B. Physical and Environmental Sciences 3 (cont'd)

KOSC Fowler

Functional Diversity, Forest Structure, and Carbon Storage: Ecological Insights for Christian Perspectives on Creation Care

Olufemi Fatunsin and Kozma Naka

Forests in the southeastern United States store substantial amounts of aboveground carbon, yet the ecological mechanisms driving this storage remain complex. Using data from more than 7,000 forest inventory and analysis plots, this study evaluates how functional dominance, functional divergence, taxonomic diversity, and tree-size inequality influence carbon storage in pine and mixed forests.

Results show that mass-ratio effects—where traits of dominant species disproportionately shape ecosystem functioning—are stronger predictors of carbon storage than niche complementarity. These findings highlight the importance of maintaining healthy populations of key functional groups while also conserving diversity that supports long-term ecosystem resilience.

From a Christian perspective, these ecological patterns can enrich conversations about creation care. Biblical teachings describe humans as stewards entrusted to "serve and keep" the earth (Gen. 2:15), a role that invites wisdom, humility, and attentiveness to how ecosystems function. The interdependence observed among species and traits echoes themes of relationality found in Scripture, suggesting that sustaining diverse and well-structured forests aligns with Christian commitments to safeguard creation and promote the flourishing of all creatures.

This presentation will discuss both the ecological implications of the findings and their relevance for a theologically grounded ethic of environmental stewardship.

IV.C. Faith and STEM Education 2 (cont'd)

KOSC 124

Starting a New ASA Chapter at Purdue University

Roger C. Wiens, James McClure, Cliff Johnston, Sarah Martin, Reed Schroeder, Elizabeth Norman, Kyle Shepard, and Josiah Tews

Four years ago, I (Roger) made a late-career move to Purdue University to become a planetary science professor. I felt called to start a campus organization focusing on faith and science. I spent the first year learning about Christian organizations on campus, and I could see that a local ASA chapter would clearly fill a gap. So, prayerfully, I reserved a room near campus and started advertising for the first meeting in 2024. The room was set to accommodate 15 people, but 48 people (mostly students) showed up and packed themselves into corners and out into the hallway. God had answered prayer!

We have met monthly since then, nearly always with a talk by a STEM professor, followed by refreshments and discussions (sometimes long). We have covered topics including: Scriptural Basis for Scientific Inquiry; God of the Gaps; Philosophy as an Antidote to Scientism; Physics, Determinism, and Free Will; The Priest who Discovered the Big Bang; How Mathematics Leads to God; What is the Brain?; Is There Life on Mars?; Genesis and Cosmology; The Scientific Revolution and Christianity; Providence and Probability; Godel's Incompleteness Theorem; and Christians and AI Companions.

Early on I met Professor McClure who was interested in starting a local chapter of the Society of Catholic Scientists. We combined efforts and so our meetings are joint ASA/SCS. In this presentation, I will share more insights into starting a local ASA chapter and its impact.

IV.D. Lightning Talks: AI and Tech 2 (cont'd)

KOSC 214

AI and Tech Lightning Talks 2

Hosts: **Hannah Eagleson** and the Affiliation of Christians in AI

Continue the conversation on AI and tech in our second lightning talks session.

Our goals are to connect participants with ASA affiliate groups or networks, share models for connecting faith and your field, and start rich discussions that will last long beyond the session.

This session will feature

- several lightning talks modelling ways to connect faith & work in AI and other technology fields,
- small group discussions to grow the conversation, and
- a closing Q&A to ask speakers some of the new questions that come up in discussion.

V.A. Tech, Computer Science, and Engineering 2

KOSC MacDonald

Who's Using Who? Perspectives on AI as Tool, Idol, and Master

Kurt Wood

Ex-Wiccan, now Orthodox Christian Paul Kingsnorth worries that AI may increasingly be summoning "principalities and powers" (Eph. 6:12), while tech billionaire and self-described "orthodox Christian" Peter Thiel recently suggested that it is opposition to AI, and more generally to what Kingsnorth calls "the Machine," which is closer to the real "spirit of Antichrist."

Somewhat between these poles, Reformed theologian Wyatt Graham argues for AI just being another tool, that "to be Christian is to sanctify the machine by God's word and by prayer."

I will argue that the biblical teaching about idolatry and formation provides powerful lenses with which to examine these different perspectives.

V.B. Panel Discussion

KOSC Fowler

Transgender Conversations in an Era of Uncertainty

Panel Discussion

Moderator: Ecologist **John Wood***

Panelists:

- Plenary speaker **Fellipe do Vale**
- Gordon Conwell theologian **Sean McDonough**
- Medical doctor **Steven Willing**
- Psychologist Kaye Cook **Heather Looy** (ill)

The church, when it is on mission, always finds itself in challenging cultural conversations. Today, no less than the 1950s and 1960s, we face multiple layers of social, scientific, and theological questions around the expression of human identity. The ASA is a forum for difficult conversations with the goal of integrating our best understanding of faith and the social and natural sciences.

Today our panel, drawn from theology, psychology, and the medical sciences is responding to the specific question of transgender identity in science and the church. We will use Fellipe do Vale's plenary address on human image as our focal point.

This panel is a continuation of a multi-year conversation at our annual meetings and in *Perspectives on Science and Christian Faith*. We invite you to participate in the Q&A in the spirit of our mission, vision, and values of intellectual humility, courageous curiosity, and radical hospitality.

Biographical sketches

John Wood (PhD, University of California, Berkeley) is an ASA emeritus executive director and professor emeritus at The King's University in Canada. His current research is the ecological and theological implications of creaturely finitude and physical death.

John is host of Diving Deeper Discussions, our ASA podcast exploring articles and book reviews in the ASA journal *Perspectives in Science and Christian Faith*.

Biographical sketches of panelists on pp. 26–27.

V.C. Faith and STEM Education 3

KOSC 124

Interdisciplinary, Faith-Praxis, and Experiential Integration in the Biological Sciences: A Pietist Approach

J. Elizabeth Doan and **Aaron Grawe**

Within Christian higher education, capstone courses provide a unique opportunity for integration tasks as students prepare to embark on the next stage of their vocational journey. These courses can generate meaningful hermeneutical awareness, which in turn (1) fosters congruence between disciplinary theory and embodied praxis, and (2) promotes the intersection of intellectual, spiritual, and vocational integrity. Herein, we present the Pietist approach employed in the Department of Biological Sciences at Bethel University (St. Paul, MN).

This seminar culminates in the generation of faith/science narratives that embrace the integrative task at three levels: experiential, interdisciplinary, and faith-praxis. Specifically, students begin the course with unique personal narratives that they have previously integrated into their own spiritual and cognitive frameworks (experiential integration). The course progression connects these lived experiences to a foundation of interdisciplinary integration that emphasizes philosophy, theology, history, and shared virtues at the intersection of science and Christian faith, while also providing concrete examples of scholars who have formed coherent understandings of faith-praxis integration. Ultimately, these strands coalesce in the creation of a unified personal faith/science narrative that is grounded in the intersection of a specific ontological perspective, interdisciplinary thought, and lived experience.

This Pietist framework promotes listening and learning across differences alongside the crafting of an integrated and congruent personal narrative that uniquely prepares students to glorify and serve God as they move from a Christian campus into the world.

V.D. Life and Health Sciences 3

KOSC 127

Impact of Diet and the Gut Microbiota on Mental Health: A Meta-Analytic Approach

Hope Ingalls

The gut-microbiome is crucial in regulating metabolic, immune, and mental health, with diet being one of its strongest modulators. Preliminary research agrees that diverse diets are linked to better mental health, though individual studies report mixed findings on how specific dietary patterns impact microbiota diversity and mental health outcomes.

This project will conduct a systematic review and planned meta-analysis evaluating the association between probiotics, prebiotics, fiber, and whole-food dietary patterns on the microbiota diversity in adults. This research is being conducted through a systematic review of peer-reviewed studies from the [last?] ten years using PubMed and related databases.

Eligible studies will be involved based on their inclusion of human participants, dietary assessment, and sequencing-based microbiome analysis. Results will be combined using random-effects models to analyze study variability. Preliminary screenings suggest a positive association between both fiber-rich and whole-food diets on microbial diversity.

Understanding how nutrition influences gut and mental health reinforces wise stewardship of the body and can advise dietary approaches that advance human flourishing and service to others. This perspective uses nutrition as a mechanism to faithfully care for the body while honoring the intricate and beautiful biological systems that God has created.

V.A. Tech, Computer Science, and Engineering 2 (cont'd)

KOSC MacDonald

Weeds, Robots, and Creation Care—Glorifying God and Serving the World

Noel W. Anderson

As the global population trends to 10 billion people by mid-century, there is a need to provide more food, fiber, and energy from agricultural lands. Weeds rob yield from crops and are typically mitigated through tillage or chemical means which are unsustainable due to topsoil loss, water pollution, and health impacts. Furthermore, some weeds have developed herbicide resistance, motivating development of new solutions.

Automation and artificial intelligence are enabling equipment (e.g., robots) to kill weeds, thus reducing negative impacts. There is room for their further improvement, particularly in speed and cost of weed treatment. When rightly deployed, automation and artificial intelligence enables humans to sustainably carry out their vocational dominion/stewardship of the land and ministry of feeding, clothing, and sheltering those created in God's image.

V.B. Panel Discussion (cont'd)

KOSC Fowler

Transgender Conversations in an Era of Uncertainty

Panel Discussion

Moderator: Ecologist **John Wood***

Panelists:

- Plenary speaker **Fellipe do Vale**
- Gordon Conwell theologian **Sean McDonough**
- Medical doctor **Steven Willing**
- Psychologist **Kaye Cook** **Heather Looy** (ill)

Panelists' Biographical Sketches

Fellipe do Vale (PhD, Southern Methodist University) is tutor in

Doctrine and Ethics at Trinity College, Bristol, where he teaches and supervises doctoral students. His specializations are in Christian ethics and theological anthropology. His research mainly focuses on gender.

Fellipe is the author of *Gender as Love: A Theological Account of Human Identity, Embodied Desire, and Our Social Worlds* (2023) and *Living a Theology of Gender: How to Love Our Gendered World* (Baker 2026).

Sean Mc Donough (PhD, University of St. Andrews) is the Mary French

Rockefeller Distinguished Professor of New Testament at Gordon-Conwell Theological Seminary. His recent books include *Truths Consuming Ecstasy* (2025) and *The Preacher's Greek Companion to Philippians* (2023), and co-editor of "*A Time for Sorrow: Recovering the Practice of Lament in the Life of the Church*" (2019).

Sean has recently taught a lengthy class at his church on sexuality and gender and is keenly interested in the theology of creation (see his *Creation and New Creation: Understanding God's Creation Project*, 2016).

(Bio Sketches, continued on p. 27)

V.C. Faith and STEM Education 3 (cont'd)

KOSC 124

Lab Experiences That Demonstrate the Ingenious Design of the Human Body

Dominic Halsmer, Senior Professor; Kyung Eun You, Assistant Professor; Fabian Martinez Santiago, Engineering Student; John Mark Obura, Engineering Student; and Jonathan Maier, Associate Professor

Laboratory experiences for a biomechanics course have been developed that not only assist in understanding the workings of the human body, but also demonstrate the marvelous ingenuity of our Creator. A tensegrity model of the living human cell was developed to help students experience the interplay of tensile (actin microfilaments) and compressive (microtubules) structural elements that affords the shape and integrity of the living cell. Students also loaded the cell model and took measurements to determine its modulus of elasticity.

A simple model of the human arm was also developed to illustrate the working of the biceps muscle at various forearm angles. Students measured the force in the biceps muscle for increasing weight in the hand. An affordance analysis and Affordance Structure Matrix (ASM) help to quantify the inherent ingenuity in the design of the human arm.

V.D. Life and Health Sciences 3 (cont'd)

KOSC 127

Euthanasia: How Safe Are Our Safeguards?

Jessica Neamtu and Daisy Savarirajan

Throughout history, societies have wrestled with profound moral questions whose consequences are often borne by subsequent generations, especially when rare exceptions become normalized, and safeguards erode as moral frameworks shift. Legalization can reshape moral norms, and framing death as a right risks turning it into an expectation that endangers the weak and vulnerable. We should end the suffering, not the sufferer. Should the hand that is meant to heal, destroy the very life it was meant to protect and preserve?

As of 2025, 12 US states have legalized medical aid in dying (MAID) with New York scheduled to become the 13th state in 2026. All these states have careful safeguards in place. However, do the next generation of medical practitioners agree with the necessity of these safeguards?

To examine these issues, a survey of undergraduate students in pre-health majors at Grand Canyon University (n = 188) was conducted. Survey responses revealed many affirming God as the ultimate authority over life and death. At the same time, participants exhibited ambiguity in moral frameworks, contributing to a broader pattern of ethical complexity and ambivalence surrounding euthanasia. Overall, the findings suggest that legal safeguards alone may be insufficient without a moral framework.

This study highlights the need for intentional ethics education that addresses not only legal compliance but also the foundational moral commitments necessary to preserve medicine as a profession that offers healing rather than harm.

V.A. TECH, COMPUTER SCIENCE, AND ENGINEERING 2 (CONT'D)

KOSC MacDonald

Defending Municipal Utilities Against Cyberattacks

Peter Story

Water treatment, electric plants, and other critical infrastructure are increasingly connected to the Internet. An Internet connection offers convenience for utility operators, but it also creates risk from cyberattacks. Furthermore, utilities are often operated by small cities and towns, which have limited technical expertise and budgets.

My lab is interviewing utility operators to understand how they secure their systems. We are also developing affordable technology to provide read-only remote access to utilities. One-way network devices, known as data diodes, can physically prevent remote tampering with critical systems. Today, data diodes are expensive, and are mostly deployed in the nuclear power industry. Our low-cost data diode will help defend local infrastructure against cyberattacks.

V.B. PANEL DISCUSSION (CONT'D)

KOSC Fowler

Transgender Conversations in an Era of Uncertainty

Panel Discussion

Moderator: Ecologist **John Wood***

Panelists:

- Plenary speaker **Fellipe do Vale**
- Gordon Conwell theologian **Sean McDonough**
- Medical doctor **Steven Willing**
- Psychologist **Kaye Cook**
  Heather Looy (ill)

(continued from p. 26, Bio Sketches)

Steven Willing (MD, Medical College of Georgia) is board-certified specialist in diagnostic radiology and neuroradiology. He comes with 40 years of clinical experience in academic and private settings, and currently serves as a pediatric neuroradiologist at Childrens of Alabama.

Steve is also an author and apologist writing on Substack and his personal site, The Soggy Spaniel. He presented "The Neuroscience of Transgenderism" at the 2024 Evangelical Theological Society, and served on the Gender Identity Task Force for Reasons to Believe (2023–2024). His publications include *The Top Ten Myths of the Sexual Revolution: What Does Science Really Say About Sex?* (2024), *Superbia: The Perils of Pride. The Power of Humility* (2022), and *Atlas of Neuroradiology* (1995).

Heather Looy (PhD, McMaster University) is professor of psychology at The King's University. She studies the biopsychology of human sexuality and gender, and on the psychological dynamics involved in our attitudes and conversations about these topics.

Heather has a particular interest in the role of emotions (especially disgust and fear) in our thinking and judgment. In the past dozen years, she has focused on translating research on gender and sexual diversity for Christian communities.

She is also the host of the podcast "Reading the Rainbows," which engages questions around research into sexuality and gender.

V.C. FAITH AND STEM EDUCATION 3 (CONT'D)

KOSC 124

Early Childhood and Spiritual Formation: Science and the Arts

Ciara Reyes-Ton

Research shows that early childhood is one of the most critical developmental stages for learning, and yet young children are one of the most under-resourced and underserved in the church, scientific, and arts communities, which often direct their programming to school-age children. Furthermore, many resources for children often feel like a "one-size-fits-all" approach; there is a need for resources that are tailored to their diverse developmental needs.

Inspired by my own children, passion for science and faith, and love for the arts, I am leading an interdisciplinary project that centers the needs of young children—newborn through five-year-olds—in the church, arts, and STEM communities. My interdisciplinary team, composed of early childhood educators, music therapists, children's pastors, scientists, and physicians, is creating songs (including STEM songs) and resources that are developmentally attuned to the needs of young children. These resources aim to support early spiritual formation, spark curiosity about God's world, and facilitate meaningful encounters with God for young children and their families through the arts.

A key innovation of this work lies in the integration of science and the arts, and a special part of this project involves music for NICU babies, children with sensory processing needs, and parents. In this talk, I will share more about the project, resources in development, and explore the intersection of science and the arts for early childhood discipleship.

Additional team leaders for this project include Alejandra Ferrer (Music Therapy Professor at Belmont University) and Jayna Gross (Music Educator).

This work was made possible through the support of an award from the Creative Arts Collective for Christian Life & Faith at Belmont University. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of Belmont University.

V.D. LIFE AND HEALTH SCIENCES 3 (CONT'D)

KOSC 127

The Incongruity of Public Health in a Hyper-Individualistic Society

Mark A. Strand

In 1700, average life expectancy globally was 30 years. This didn't change until 1884, when Robert Koch used his postulates to scientifically defend the germ theory of disease. With this, the science of public health expanded substantially, resulting in a doubling of life expectancy in the next 100 years.

In addition to the contributions of chemistry and physiology, public health expansion was predicated on a collectivistic principle that prioritized the needs of the community, and built on the value of love of neighbor, in synergy. This was part of what became known as the social contract: the belief that we all do better when we do better together.

In contrast to collectivism, individualism is a social philosophy that assigns higher value to the individual, and was instrumental in Enlightenment thinking. A cornerstone in the founding of the United States, individualism is at some levels in conflict with public health and Christian faith. Taken to an extreme, it challenges the ability to create a sacrificing, unified community, both in public, and in the church.

If allowed to predominant, this hyper-individualism makes it difficult to establish an effective public health system, and nearly impossible to create deep Christian community. This jeopardizes both social and spiritual flourishing.

Community is a necessary component in civil society, and a defining aspect of the Christian life. It will be argued that public health will worsen with unbridled individualism.

VI.A. Theology and Humanities 4

KOSC MacDonald

Flipping the Script: Emphasizing God's Faithfulness as the Foundation for Empirical Sciences

Carl Fictorie

Scientists of diverse faiths are able to work together to understand nature by empirical investigation and generating theories to explain those phenomena. The source of this unity, from the point of view of the Christian, is an appeal to God as a creator who remains faithful in upholding the order in creation in a manner that is visible to all. From this Christians can introduce the need for empirical study of creation as the means to develop theories to describe and explain natural phenomena.

This presentation will explore the nature of empirical study from the point of view of a physical scientist. The author's intellectual tradition, the Neo-Calvinist stance of Abraham Kuyper, has provided a theological and philosophical foundation for understanding the faithfulness of God toward nature in notions of faith-based discernment and obedient directional use. Haarsma elaborates on this foundation and Jeager builds a comprehensive analysis of it. But they do so as worldview scholars in these contexts.

At the heart of the scientific method is the experiment, the direct probing of creation. The presentation will consider aspects of experimentation to make the case that empirical science transcends the diversity of the faith commitments of the scientists and considers the scope of applicability of this notion, especially in light of the high degree of science skepticism in our present culture.

VI.B. Physical and Environmental Sciences 4

KOSC Fowler

Creation's Calling: Theology of Place

Amaya de Vin, **Jennifer Boone**, Heather Prior, and Andrew Rillera

Creation's Calling aspires to be a platform for Christian young adults to discover more about the integration of science and faith. Creation's Calling is introducing magazine booklets as its first resource. This idea originated out of the lack of accessible, captivating resources that guide its audience through theological and scientific questions.

Through a creative lens, these booklets will capture a mix of resources presented in written and graphic form, covering topics related to our biological home on Earth. Inspired by God's creativity in nature, these booklets will feature photography, illustrations, poetry, and reflections which inspire calls to action in environmental stewardship and awareness.

The first booklet, showcased in this presentation, will discuss a "Theology of Place," introducing resources that address key questions: How are we to steward the shared land we live on with others and other creatures? Why should we care? and How do we find hope moving forward?

Alongside these questions, topics will include the reality of environmental care, and the theology of creation in the church. Creation's Calling curates diverse voices such as "GraceLand: The Land as Relational Gift in the Bible," other Christian theologians and scientists, as well as interviews with Christian leaders.

As a collection of resources and perspectives, Creation's Calling hopes to produce more booklets covering other issues related to the integration of science and faith to inspire and guide Christians into fruitful reflection, discussion, and action.

VI.C. Affiliates and Local Chapters

KOSC 214

Dialog with Members of ASA Affiliations and Chapters to Strengthen Outreach Efforts

Dana Oleskiewicz, moderator

Affiliations organized by discipline and our chapters by geographic regions are the ASA outreach strategy for reaching diverse audiences with science and faith programming. This ASA organizational seminar is specifically designed to give these ASA groups an opportunity to learn helpful tips related to marketing, funding, volunteer recruitment and retention, and harnessing social media visibility.

We will begin with an informal panel discussion featuring **Katy Hinman** (American Association for the Advancement of Science), **Angie Cornwell** (ASA Chapter Faculty Advisor), **Karma Carrier** (ASA Marketing Committee), and **Kathy Sperounis** (ASA Marketing & Communications) that will focus on aspects of group management, including specific information related to interfacing with the ASA home office.

We will conclude the session with each affiliation and chapter having an opportunity to meet separately as a group for further conversation and strategic planning for the 2026–27 academic year. This is intended to be a more formal occasion than the meal meet-ups, to take advantage of in-person dialog.

All ASA members are invited to participate in this session to share your insights and offer suggestions on the future direction for the ASA affiliations and local chapters.

Please join us if you are interested in joining and/or leading a chapter or affiliate group.

VI.A. Theology and Humanities 4 (cont'd)

KOSC MacDonald

The Great Divide of 1925

Jim Green

In 1925, two notable events in the US featured the relationship between faith and science. The two could not have been more different. One was the now infamous "Scopes Monkey Trial" in Dayton, TN. The other was the relatively unknown Lowell Lecture Series in Boston, MA, by invited lecturer Alfred North Whitehead.

The show trial in Tennessee pitted secular advocates for Darwinian evolution against religious fundamentalist opponents. It remains a quintessential example of open warfare between faith and science.

Whitehead's lecture surprised his academic audience by proposing that Christian thought provided necessary ingredients for the genesis of modern science in 17th-century Europe. His thesis went beyond merely a harmonious relationship between faith and science. He put Christian thought in the center of that origin story.

The divide between these two events could hardly be greater. Unfortunately, the little-known Whitehead lecture has a substantially greater contribution to offer today than the well-known trial in Tennessee.

With this presentation, I seek to raise awareness of Whitehead's thesis and to pose these two questions to the ASA community:

1. Was Whitehead correct? Is modern science a "legacy of Christianity"?
2. If yes, why is this conclusion not more visible/prominent today in the ASA and in the broader Christian community?

VI.B. Physical and Environmental Sciences 4 (cont'd)

KOSC Fowler

Review of Nearly Seventy-Five Years of ASA Literature About Noah's Flood

David B. Robbins

The ASA resource database reveals a rich discussion by over 100 contributors about a global flood rekindled by the book *The Genesis Flood* that jumpstarted the young earth creationist movement. Between 1953 and 1998, ASA literature focused on the geological, biological, and physical sciences in debating a global vs. local flood. Arguments were made favoring a catastrophic, local flood. During this period, only a few people explored the connection between the biblical story and the Ancient Near East (ANE), notably Tanner, Camping, and Fischer.

Since 2000, and embracing 20th century archaeological findings, the focus turned more to ANE peoples, geography, location, archaeology, and ancient literature. Most contributors, including Hill, Dickin, and Fischer, viewed the biblical flood story as a local, catastrophic Mesopotamian flood and generally but not entirely aligned with a traditional date of 2900 BC. For example, Dickin proposed a date range of 5500–5700 BC based on new understanding of the King's List (Camping placed the date at 5590 BC).

Several publications not in the database by ASA affiliates contribute significantly to the discussion. Young considered how the church has responded to extrabiblical evidence. Lamoureux concludes that "Noah is the creation of recycling and theological reinterpreting." Ross negates an ANE connection by proposing a flood between 120 and 45 kya based on the necessary timing of God's judgment before humanity had fully populated the earth and attributes the flood to glacial melting, sea level rise, and natural catastrophic causes.

Over the years, physical evidence and possible flood causes received limited attention. Of note, Seeley commented that GISP2 cores reveal a stable ice sheet over 110,000 years. Hill considered cyclonic storm impact and evaluated hydrological insights. Robbins reported on scientific studies related to a possible Holocene comet impact. Dickin considered geological data pertaining to Mesopotamian flooding.

VI.C. Affiliates and Local Chapters (cont'd)

KOSC 214

Dialog with Members of ASA Affiliations and Chapters to Strengthen Outreach Efforts

Dana Oleskiewicz, moderator

Affiliations organized by discipline and our chapters by geographic regions are the ASA outreach strategy for reaching diverse audiences with science and faith programming. This ASA organizational seminar is specifically designed to give these ASA groups an opportunity to learn helpful tips related to marketing, funding, volunteer recruitment and retention, and harnessing social media visibility.

We will begin with an informal panel discussion featuring **Katy Hinman** (American Association for the Advancement of Science), **Angie Cornwell** (ASA Chapter Faculty Advisor), **Karma Carrier** (ASA Marketing Committee), and **Kathy Sperounis** (ASA Marketing & Communications) that will focus on aspects of group management, including specific information related to interfacing with the ASA home office.

We will conclude the session with each affiliation and chapter having an opportunity to meet separately as a group for further conversation and strategic planning for the 2026–27 academic year. This is intended to be a more formal occasion than the meal meet-ups, to take advantage of in-person dialog.

All ASA members are invited to participate in this session to share your insights and offer suggestions on the future direction for the ASA affiliations and local chapters.

Please join us if you are interested in joining and/or leading a chapter or affiliate group.

VI.A. THEOLOGY AND HUMANITIES 4 (CONT'D)

KOSC MacDonald

A New Understanding of Genesis 1–3 and Its Ethical Implications for Society

Victoria Campbell

Geological, geographical, and satellite data strongly suggest that the socio-historical backdrop of Genesis 1–11 was the ancient Mesopotamian Tigris-Euphrates river valley. Furthermore, Genesis 5, 11, and Abram's birth in 2166 BCE would place Adam's era around 4000 BCE in ancient Sumer. It is therefore unsurprising that some of the more obscure words found in Genesis 1–3 are Sumerian in origin.

This presentation will offer a brief reinterpretation of the text to show that Genesis 1 describes the cosmos as God's temple where all human beings—both male and female—are entrusted with the rule and stewardship of the earth. Genesis 2 continues as the sequel to Genesis 1, where mortals (*adam*) are entrusted with God's wisdom (Eden/the Water of Life) and given wisdom (the woman/wife) as a companion to fulfill their royal responsibilities. Yet, Genesis 3 warns that every mortal (adam) who allows their wisdom (the woman) to follow earthly wisdom (the serpent) will experience separation from God (Death).

This Mesopotamian interpretation of Genesis 1–3 upholds the inherent dignity and royalty of every human being as well as their right to speak with authority and rule the earth. Moreover, this worldview challenges worldly wisdom that projects hierarchical views of humanity in which those who are strong have the right to impoverish and enslave the weak, women are deprived of their equal God-given rights as co-rulers of the earth, and human life is exploited for trafficking and organ harvesting.

VI.D. AFFILIATES AND LOCAL CHAPTERS (CONT'D)

KOSC 214

Dialog with Members of ASA Affiliations and Chapters to Strengthen Outreach Efforts

Dana Oleskiewicz, moderator

Affiliations organized by discipline and our chapters by geographic regions are the ASA outreach strategy for reaching diverse audiences with science and faith programming. This ASA organizational seminar is specifically designed to give these ASA groups an opportunity to learn helpful tips related to marketing, funding, volunteer recruitment and retention, and harnessing social media visibility.

We will begin with an informal panel discussion featuring **Katy Hinman** (American Association for the Advancement of Science), **Angie Cornwell** (ASA Chapter Faculty Advisor), **Karma Carrier** (ASA Marketing Committee), and **Kathy Sperounis** (ASA Marketing & Communications) that will focus on aspects of group management, including specific information related to interfacing with the ASA home office.

We will conclude the session with each affiliation and chapter having an opportunity to meet separately as a group for further conversation and strategic planning for the 2026–27 academic year. This is intended to be a more formal occasion than the meal meet-ups, to take advantage of in-person dialog.

All ASA members are invited to participate in this session to share your insights and offer suggestions on the future direction for the ASA affiliations and local chapters.

Please join us if you are interested in joining and/or leading a chapter or affiliate group.

Student Poster Contest

Graduate and undergraduate students submitting posters will be entered into the student poster contest. We are excited to honor exceptional student work at the 2026 ASA Annual Meeting.

Posters will be judged on the following criteria:

Overall Clarity of Presentation

- Visual interest
- Readability
- Balance between text and visuals

Elements and Flow

- Title and authors
- Statement of purpose and significance
- Description of research

Quality of Research

- Key references to support findings/ conclusions

Graphs and Data Presentation

- Do they support the conclusions?
- Are they readable and clear?

The winner will be announced at the Sunday night Ice Cream Social and InterVarsity Reception.

1

Women, Religion, and Conflict: Decrying the Religious Justification for the Captivity of Women and Children as an Act of Conquest

Ladi Achimugu

As global interconnectedness intensifies, the urgent task of confronting religiously sanctioned violence becomes increasingly difficult to ignore. Across diverse conflict zones, acts such as abduction, rape, sexual slavery, persecution, and honor killing continue to be justified through selective readings of sacred texts and long-standing cultural traditions. Until these gendered forms of religious violence are centered within global peace and security discourse, efforts toward sustainable peace will remain incomplete.

Drawing on case studies from historic and contemporary conflicts in Africa—particularly Boko Haram in Nigeria—and the Middle East, including Afghanistan, this presentation challenges the religious justification of the captivity of women and children, demonstrating that conquest-based interpretations of religious texts reflect patriarchal and political ambitions rather than divine mandate.

The presentation interrogates how religious narratives are mobilized to legitimize domination, forced marriage, and the treatment of women and children as spoils of war. Using feminist, transnational, and decolonial theoretical frameworks, the analysis shows how sacred texts, symbols, and moral claims are weaponized to naturalize patriarchal authority and sanctify violence, while critically examining the ethical possibilities of resistance, reinterpretation, and feminist re-reading.

2

Glorifying God by Caring for the Land: Sustainable Agriculture as a Scientific Lens for Interpreting Luke's Agrarian Parables

Joshua Afzal

Contemporary ecological science identifies soil health, organic amendment, and long-term stewardship as foundational principles of sustainable and regenerative agriculture for sustaining human life and agroecosystem integrity. This study applies that scientific framework as an interpretive lens to the agrarian parables of the Gospel of Luke, asking the questions: How do sustainable agricultural principles illuminate Luke's agrarian parables? and How does Luke's focus on human salvation shape the perceived relationship between humans and their ecological environment?

Two parables were selected for analysis: the Sower (Luke 8) and the Barren Fig Tree (Luke 13:6–9). The study employs biblical exegesis through semantic analysis of agronomic terminology and theological argumentation tracing the transfer of agricultural processes from ecological reality to human and theological meaning.

Findings demonstrate a substantive conceptual parallel: the principles of soil heterogeneity, autonomous biological growth, organic amendment, and patient stewardship that regenerative agriculture identifies as essential for sustaining resilient agroecosystems are reflected in Luke's agrarian imagery and transformed within his theology of salvation. This convergence is the study's central contribution: the agricultural processes that sustain human life materially become the metaphors through which Luke communicates human restoration and salvation. Situated within ecological theology, this interdisciplinary analysis demonstrates that science-faith integration offers Christians working in the area of agriculture a coherent framework for understanding care for creation as both scientific responsibility and faithful Christian stewardship, contributing to a vision of human flourishing within God's creation.

3

"God Is Talking to Me": Hallucinations, Discernment, and Clinical Responsibility

Jonas Attilus, MD, MPH

Reports of hearing or seeing God are frequently encountered in psychiatric practice and raise complex questions at the intersection of faith and medicine. Visual and auditory hallucinations can arise from psychotic disorders, post-traumatic stress, substance use, sepsis, dehydration, sleep deprivation, fear, and social isolation. When such experiences are interpreted as divine communication, clinicians face the ethical challenge of responding in ways that neither dismiss the person's faith nor overlook potentially treatable causes of suffering.

Careful clinical discernment must precede spiritual interpretation. Psychiatry does not adjudicate theological truth, but it bears responsibility for assessing factors that may compromise perception, agency, and safety. Premature attribution of hallucinatory experiences to divine communication can reinforce delusions, delay care, or intensify distress and further stigmatize those in need of medical treatment.

At the same time, reductive dismissal of religious language risks alienating patients for whom faith is central to meaning and identity. This poster proposes a framework that shifts attention from content ("God") to form and function: distress level, impact on functioning, cultural context, and contributing physiological or psychological factors. This approach aligns clinical practice with a shared ethic of discernment, humility, and care for the vulnerable.

4

Narratives That Connect: Books, Friendships, and *Imago Dei*

Anita Azeem

Social psychology research indicates that children learn about the identity of the groups they belong to at an early age—as early as toddlerhood. Outgroup hatred comes later, around the child's sixth birthday. A few theories in the discipline help understand the process effectively.

- The *Social Identity Theory* explains the perception of children regarding age, gender, social class, physical appearance, language and other identifiable qualities of people and their categorization into "me" or "not-me."
- To reduce outgroup prejudice, the *Intergroup Contact Theory* explains that the experience of positive interaction with the outgroup members will reduce outgroup fear and anxiety.
- *Parasocial Contact Hypothesis* further explains that these effects can even be achieved with the help of indirect contact, for example, by introducing diverse characters in children's books.
- Lastly, the *Common Ingroup Identity Model* suggests that intergroup bias can be reduced when people perceive each other as "we" instead of "us vs. them."

The doctrine of *Imago Dei* (Gen. 1:27) can complement current social psychological perspectives in the recognition that everyone is made in the image of God and hence dignified and equal in value. Combining this theological framework with existing social psychological theories may help children to be more accepting of diversity ranging from being friends with someone who uses a wheelchair to someone who is still learning to speak in English.

5

Traditional Medicine, Neuroscience, and Faith: A Cameroon-Centered Evidence Map of Indigenous African Knowledge for Global Health and Creation Care

Cerena Bilong

This work investigates how traditional plant-based medicinal practices across African contexts can inform contemporary global health through scientific and neuroscientific evaluation, framed by a Christian understanding of creation care and service. The central question guiding this study is how indigenous African medicinal knowledge often transmitted through cultural and faith-based practices may influence neurological and psychological health outcomes, and how such knowledge can be responsibly examined within modern biomedical research.

Drawing on peer-reviewed literature, this project reviews bioactive compounds in widely used African medicinal plants that exhibit anti-inflammatory, antioxidant, and neuroprotective properties, with attention to mechanisms related to neuroinflammation, stress regulation, and cognitive function. In parallel, it considers socio-anthropological evidence illustrating how faith and belief systems shape health behaviors, resilience, and responses to illness, providing essential context for interpreting neuroscientific findings.

Rather than positioning traditional medicine as an alternative to modern healthcare, this work proposes an integrative model in which neuroscience evaluates biological mechanisms while cultural and spiritual frameworks inform how healing practices are understood and applied. From a faith-informed perspective, biodiversity and indigenous knowledge are viewed as gifts of creation entrusted to human stewardship, calling scientists to pursue research that is rigorous, ethical, and attentive to the communities it serves.

By integrating neuroscience, global health, and faith, this work demonstrates how scientific inquiry can glorify God and serve the world by advancing culturally sensitive, evidence-informed approaches to human flourishing.

6

The Christian Ethics Surrounding Genetic Editing for Gene Therapies and Regenerative Cosmetics

Geoffrey Boadu

Gene editing technologies are a revolutionary breakthrough in medicine that can cure genetic disorders and cancers by upregulating suppressed genes, removing pathogenic mutations, or downregulating overexpressed genes without requiring an HLA-matched donor. They also support molecular diagnostics through targeted detection of DNA and RNA sequences in pathogens and malignancies.

Recently, gene editing has expanded into commercial applications such as regenerative cosmetics and selective pet breeding. However, uncertainties remain regarding adverse effects such as graft versus host disease (GVHD) in clinical settings, and unregulated stem cell clinics pose additional risks, including infections, blood clots, cardiac events, tumors, and unknown long-term complications. This work situates these developments within a Christian ethical framework emphasizing human dignity and moral responsibility.

Given these risks, the FDA requires strict standards for editing methods, degree of modification, and delivery systems; high costs and inconsistent insurance coverage further limit access. These challenges raise ethical concerns regarding the harvesting and use of edited and unedited stem cells.

Christian advocacy groups have historically influenced federal policy in this area, most notably through the Bush administration's restrictions on federal funding for embryonic stem cell research to prevent embryo destruction. This context underscores the ongoing scarcity of ethically sourced or donated stem cells.

7

The Eloquence of the Clams: Taphonomy as a Clue to Earth History

David Campbell

The clams are a diverse component of creation. Humans make extensive use of them for food, ornament (pearls and mother of pearl, shell beads, byssal threads), biological monitoring, and other functions. Their shells are often abundant, making them an important component of the fossil record. Because of this, their fossils were important in the initial development of historical geology.

Occasionally young-earth sources claim that buried, closed bivalves must have been buried in a global flood (with additional inaccurate detail about the supposed relative frequency of such specimens). In reality, the balance of factors promoting gaping versus closed shells after death is complex, depending on the environment, the configuration of the animal in life, relative strength of hinge and ligament, and post-mortem environmental processes. Taphonomy, sometimes defined as death, decay, and destruction, enables interpretation of the context for fossilization.

The details of preservation of fossil clams, their sedimentary context, and similarities to living forms enables identification of a wide range of environmental conditions of life and death. Different bivalve taxa range from fully freshwater through brackish and intertidal settings to deep ocean and from living on the surface to deeply burrowed.

In turn, shells provide habitat for various other organisms, recording some history of the shell beyond death of the animal. The growth lines and stable isotopes provide records of climate patterns; some live over a century. Fossil and subfossil shells thus provide extensive environmental records that can inform conserving and restoring habitats. Therefore, listening to the fossil record provides a vivid picture of past conditions, informing our efforts to care for creation into the future.

8

"Do Work as Unto the Lord" or Else It All Sounds the Same

Timothy Campbell, **Abby Mace**, and David Campbell

Given enough time in any field of study, one inevitably encounters papers that have enough useful information to be important to reference, but also contain serious problems or errors. It is also sadly common to encounter promotional materials for pseudoscientific ideas of dubious validity. These often contain very similar types of problems and errors, even if they differ wildly in source, topic, level of technicality, or target audience.

These errors often involve an inflated self-sense of the authority, accuracy, or knowledge of the writer (and thus violate commands against pride); rushed or slipshod work, violating commands to labor as unto the Lord; insistence on the accuracy of specific past or current ideas in spite of contrary evidence, violating commands against following human traditions when they violate higher laws; and failing to heed or responding poorly to corrections or criticism.

We discuss several examples of these that we have encountered in paleontology, psychology, history, and related fields. These should all serve as cautions to those working in scientific fields to ensure that they are following applicable biblical principles in their labor and being good witnesses to others who may read their works. They also can be useful marks to look for in evaluating the quality (or lack thereof) of papers, and perhaps helping to communicate to the public about why a particular pseudoscientific idea immediately sounds bad to scientists, even in other fields.

9

Saving Creation: The ASA Science and Religion Course Program

Paul H. Carr

The year 2024 was the hottest ever recorded. Billion-dollar weather disasters have increased from 3 in 1980 to 27 recently. To save God's creation, the power of caring theology united with technology is needed to save ecology.

In 1953, I experienced this need as I left my Methodist minister's home in Ipswich, MA, to enter MIT, where I was shocked to meet many for whom religion was irrelevant. I then resolved to relate my love of science with religion. This had to wait until 1995 when I retired from the AF Research Laboratory. I discovered that Robert Herrmann, then ASA Executive Director and Gordon College adjunct professor of chemistry, had established the Science and Religion Course Program with financier John Templeton.

Herrmann's workshop at Gordon College was helpful in preparing my comprehensive course proposal "Science and Religion: Cosmos to Consciousness." My multi-year experiences in teaching it at U Mass Lowell inspired my book *Beauty in Science and Spirit*.

I continue to serve God and his creation by teaching at the University of New Hamphire, Rivier University, and Eckerd College together with my 2025 book *Containing Climate Change to Save Us*. I will tell how my church's Green Team used motivating theology to raise funds for the purchase of solar panel technology to save our ecology.

10

Cybersecurity: Digital Stewardship in a Violent World

Rocky Chang

Cybersecurity is more than a technical discipline focused on protecting digital systems; we argue that it is an expression of biblical stewardship. Rather than centering on technology or human capability, this perspective grounds cybersecurity in God's ownership of creation, including cyberspace and all digital property. Faithful stewardship therefore calls us to protect our neighbors' digital assets by preserving their confidentiality, integrity, and availability.

Drawing on the biblical account of the Fall, we identify deception and human vulnerability as foundational to understanding modern cyber threats. The serpent's temptation in Genesis parallels contemporary attacks such as phishing and social engineering, illustrating that deception remains a primary weapon in cyberspace. Human sinfulness and finitude also make complete cybersecurity unattainable, as defenders remain limited in knowledge, resources, and ability while confronting increasingly sophisticated threats. Consequently, cybersecurity is best understood as an ongoing responsibility rather than a mission that can eliminate cyber conflict.

The biblical narrative of redemption provides the foundation for hope by demonstrating Christ's victory over evil. Although cyber warfare continues, Christians are called to participate in God's restorative work through digital stewardship, carrying out this responsibility with humility while recognizing human limitations and God's sovereignty.

Finally, we examine practical implications for wise digital behavior, ethical professional practice, cybersecurity education, organizational accountability, transparency, and responsible ethical hacking. We conclude that cybersecurity is a vocation of loving our neighbors through the faithful protection of digital property, motivated by participation in God's redemptive purposes for creation.

11

Subtle Distinctions of Meaning in the Bible Translator's Assistant Software for Bible Translation

Richard Eugene Denton

The Bible Translator's Assistant (TBTA) is a rules-based computer program that is capable of generating draft translations of Bible books. All the Word Bible Translators (ATW) is currently using this program to provide a resource for translation into approximately 10 languages, most of which are spoken in Africa and Asia. In order to use this software, the vocabulary and grammar of the target language must be entered into the program.

TBTA uses these with its pre-analyzed Bible text to produce a translation. TBTA can be used even if there is no body of translated text—needed for an Artificial Intelligence (AI) model. The TBTA translations are semantically accurate, although they require editing to make the text sound more natural. Thus, they complement AI translations (when AI can be used), which typically produce some errors in meaning ("hallucinations").

Here we discuss subtleties of the representation of meaning in the program. For instance, TBTA accounts for 25 different meanings of the verb "to be," including equative ("John is that man"), locative ("John is under the table"), kinship role ("John is Mary's brother"), and many others. The program also accounts for many different tenses, such as immediate future, tomorrow, next week, next month, speaker's lifetime, and unknown future. Distinctions such as these are necessary to make it possible to translate into a variety of the world's languages.

12

Beyond the Trip: A Humanitarian Study Abroad Impact Evaluation Toolkit

Ogochukwu (Ogo) Elisha-Wigwe

Humanitarian projects continue to attract increasing interest worldwide, often driven by the fulfillment that comes from helping others. However, limited empirical research examines their long-term effects, especially on students participating through university programs.

This project presents a survey framework designed to assess how humanitarian experiences influence student development across various psychological and behavioral factors, including empathy, the savior complex, self-efficacy, culture shock, and cultural intelligence. This framework incorporates newly developed, adapted, and validated measures within a longitudinal design, administered at three points: pre-departure, mid-trip, and post-trip. This overview explains the rationale, design process, and methodological considerations, along with preliminary and ongoing results.

While the framework is research-focused, its broader aim aligns with a theological perspective of service that respects human dignity and stewardship. By exploring how individuals grow in empathy and cultural understanding through humanitarian work, this project provides insights into how engineering education can develop not only skilled professionals but also compassionate servants who view their skills as a way to love and uplift others.

13

Serving God, Students, and Leaders Through the Gift of Communication: Case Study Servant Co-Leadership

Elaine Fung
and Candace Saunders-Grewe

In this qualitative autoethnographic case study, we explore embody servant co-leadership as volunteer student co-leaders for the Spring 2025 qualifying exam study group for a PhD in Communication program at a private Christian University on the East Coast.

We extend Greenleaf's servant leadership and Schultze's servant teaching through servant co-leadership by considering how two leaders lead and serve together.

As servant co-leaders, there was an opportunity to redeem our roles as teachers, rejuvenate our approach to teaching, revitalize community engagement, and remember that we are learning together to renew the qualifying exam study process.

Through servant co-leading, we were able to maintain a retention of 10 examinees who started and followed through with taking the qualifying exam, eight of whom successfully ascended to candidacy.

14

How College Mergers Impact the Faculty Labor Market

Deborah Gaisie

There is growing interest in understanding how competition between firms affects labor markets. However, the existing empirical work in this area is concentrated in a few sectors where firms are clear profit maximizers.

In this study, I explore whether mergers and consolidations among higher education institutions shape competition and affect faculty employment and wages. I identify college mergers occurring between 2000 and 2022 and use data from the Integrated Postsecondary Education Data System.

I compare faculty employment and wages of institutions in local areas that were exposed to a merger to institutions in areas without any such activity. I find that while merging institutions increase faculty employment in the seven years following a merger, mergers reduce employment among non-merging competitors in exposed markets. I do not find any impact on faculty wages.

For Christian higher education institutions navigating an increasingly changing landscape, these findings offer insights into the effects of recent college consolidations. Understanding these dynamics in the higher education sector is also essential for the responsible stewardship of academic institutions.

15

Environmental Stewardship and Water Quality: Assessing *E. coli* Levels in the Gila River

Matehya Grecula
and Berenise Charlton

Water is one of God's greatest gifts to creation, essential for sustaining life and community. As stewards of his creation (Gen. 2:15), we are called to protect and care for what God has entrusted to us. This study reflects that calling by assessing *E. coli* and total coliform levels in the Lower Gila River at the Base and Meridian Wildlife Area, a diverse riparian habitat west of Phoenix.

In collaboration with the Arizona Department of Environmental Quality's Community Science Alliance and Citizen Water Watch program, monthly sampling conducted from January through December 2025 revealed average *E. coli* levels of 190.94 MPN at Site 1 and 149.81 MPN at Site 2. Both sites remain within federal and Arizona state safety guidelines for full body contact.

Additionally, *E. coli* levels at both sites met the federal partial-body contact standard. In contrast, total coliform levels consistently exceeded 2419.6 MPN, indicating possible ecological and health risks.

These findings underscore the importance of faithful scientific stewardship in protecting God's creation and serving our communities through environmental care. *"The earth is the Lord's, and everything in it"* (Psalm 24:1).

16

Reinforcement Learning: A Christian Perspective

Paul Griffioen

This poster sets forth a Christian perspective on reinforcement learning, a machine learning paradigm where an intelligent agent takes actions in a dynamic environment to maximize a reward. The poster investigates the history of reinforcement learning, highlighting the behavioristic worldview behind its development. This worldview continues to influence the decisions of those involved in teaching and applying reinforcement learning today, particularly as it encourages the view that humans are no more than their brains.

In contrast to this view, this poster sets forth a distinctly Christian view of reinforcement learning, drawing upon a biblical understanding of humans as made in the image of God. For humans, high-level reasoning is much more difficult to develop than low-level sensorimotor skills. In contrast, for machines, high-level reasoning is far easier to achieve low-level sensorimotor skills. This poster demonstrates how this idea, known as Moravec's paradox, is ultimately an outworking of what it means to be made in the image of God.

17

Stewarding Data from the Wheaton College Intelligent Solar Program

Rosemarie Hunter and **Chris English**
Darren Craig, Troy Hammond, Kyle Schauer, and Kelly Vazquez

Wheaton College recently implemented a new solar panel and battery storage system. There is considerable interest from faculty across disciplines to use the data that is generated by this system in classroom or research applications, but there is currently no structure in place to publicize the data for the campus community.

We are in the process of building a database that consolidates our solar and battery data together with weather and electrical grid data (totaling over 500 signals across four sources) and creating a user interface through which campus community members will be able to access the data in a convenient format. While we hope our project will help our campus community better steward the environment, we also view our project as good stewardship of the data itself.

Stewardship of data and of opportunities is something we hear less about than stewardship of the earth and its resources, but we believe it is also a valuable way to glorify God and serve our community.

18

Ethical Conduct of Clinical Trials as an Expression of Glorifying God

Chloe Liu

Illness erodes health and quality of life, while medicine aims to preserve and restore life. To ensure that medicines accomplish their intended purpose, their development requires rigorous testing and ethical oversight involving many stakeholders and significant consequences. While clinical research is often driven by the desire to advance medical knowledge and benefit patients, human sinfulness can introduce competing interests that may lead to harm. For this reason, ethical regulations have been put in place to guide and safeguard the conduct of clinical trials.

The design, implementation, and interpretation of clinical trials in humans should follow published guidelines to evaluate the effectiveness of a medication, including preclinical studies, institutional partnerships, informed consent from participants, and continuous monitoring with ongoing risk assessment.

The ethically appropriate balancing of benefits and risks along with inclusion of meaningful clinical outcomes can be grounded in corresponding expressions of glorifying God. These expressions include Christian virtues such as humility, prudence, truthfulness, and love of neighbor, through which stewardship, covenantal responsibility, and the bond of peace are fostered.

Together, the process of developing new molecular and cell-based therapies invites researchers to acknowledge the limits of human knowledge while serving God's Kingdom through ethical practice at every stage of research. As we faithfully steward the gifts and grace entrusted to us, pursuing both scientific excellence and the reconciliation of all things in Christ, we can develop life-supporting medicines and give glory to God through clinical research.

19

Exploring Conceptual Resonance Between Quantum Tunneling and Miracles in the Bible

Calvin Henry Easterling, **Xiaomin Ma**, and Joy Toku

Quantum mechanics has recently gained widespread attention for its potential applications in developing next-generation computing and communication technologies. Among its foundational phenomena, *quantum tunnelling* describes the ability of a particle to pass through an energy barrier that it cannot overcome according to classical physics. Intriguingly, aspects of quantum tunnelling appear—at a conceptual and metaphorical level—to resonate with accounts of miracles and supernatural events recorded in the Bible.

This poster presents an exploratory and interdisciplinary investigation of such resonances. Its aim is to identify selected biblical passages whose narratives parallel the core characteristics of quantum tunnelling. The discussion begins with an accessible introduction to the physical principles underlying quantum tunnelling. It then examines metaphorical correspondences between this quantum phenomenon and biblical passages involving the transcendence of apparent physical constraints. Examples include faith as belief in the unseen: Jesus passing through closed doors, Peter's miraculous escape from prison, and the angel at the tomb during the resurrection of Jesus. Through these examples, the poster seeks to foster dialogue between modern physics and theological reflection.

20

Interpreting Biblical Paradoxes Through the Lens of Quantum Superposition

Xiaomin Ma, Calvin Henry Easterling, Joy Toku, and Eliezer Ramirez

Quantum mechanics has attracted growing attention in recent years due to its transformative potential in next-generation computing and communication technologies. Notably, several behaviors exhibited by quantum systems appear to resonate, at a conceptual level, with spiritual principles articulated in the Bible.

This poster offers an exploratory and interdisciplinary analysis that draws parallels between paradoxical passages in the Bible and the principle of quantum superposition. The discussion begins with an accessible introduction to the foundational concept of superposition in quantum mechanics.

It then examines metaphorical correspondences between this quantum property and selected biblical paradoxes—including the Trinity of God, faith as both real yet unseen, predestination and free will, God's redemptive plan enacted through Judas's betrayal, supernatural miracles, life through death, wisdom through foolishness, and the notion of possessing nothing while having everything.

By highlighting these conceptual resonances, the poster proposes a framework for appreciating how scientific inquiry and theological reflection can coexist in a complementary and intellectually coherent manner, offering fresh perspectives on enduring questions at the intersection of science and faith.

21

Belonging Through Technology: International Graduate Student Perspectives

Amona Major and **Leytisha Jack**

This qualitative study explores how international graduate students strategically use educational technologies to foster belonging in U.S. higher education. Using inductive thematic analysis of 14 semi-structured interviews with students from nine countries and multiple disciplines, five main themes were uncovered demonstrating technology's supportive function for belonging.

Participants reported using AI tools to reduce anxiety and support language production, asynchronous platforms and tools to gain processing time, and collaborative technologies to achieve visibility and peer validation. Findings suggest that sense of belonging happens at the intersection of intentional instructor design, linguistic accessibility, peer recognition, and opportunities for authentic participation.

Framed within the Community of Inquiry framework, this research advances understanding of technology-mediated belonging and offers implications for inclusive instructional design practices in multilingual graduate education.

22

Examining the Impact of Tobacco Tax Reform in Ghana: Fiscal and Public Health Implications

Christian Osei

Tobacco use imposes a profound human and economic burden on Ghana, claiming over 6,600 lives annually. Despite its proven effectiveness, tobacco taxation in Ghana has traditionally relied on a uniform *ad valorem* (based on value) structure, which is vulnerable to manipulation and generates suboptimal revenue for the common good.

Our preliminary analysis provided enough evidence which led to the government to modify the tax structure in 2023. Responding to both international guidance and a call for more effective stewardship of public health, this study evaluates the potential fiscal and public health outcomes of transitioning to a robust mixed or specific excise tax system on cigarettes.

We employed a cross-sectional design, collecting primary price data on cigarettes from 2,287 vendors, small shops, and large retail outlets across three zones of Ghana (northern, middle, and southern). Using this data, we simulated the impact of four alternative tax scenarios: (1) a higher *ad valorem* rate, (2) a uniform specific tax, (3) a mixed system (specific + *ad valorem*), and (4) a hybrid model reflecting ECOWAS recommendations. Simulations estimated changes in retail price, government revenue, consumption levels, and mortality over a two-year period.

Results indicate that transitioning to a mixed or specific excise tax (scenario 3) substantially increases retail cigarette prices, reduces consumption, and enhances fiscal outcomes. This scenario predicted increased government revenue (in both GHS and USD) and notable reductions in cigarette consumption and smoking-related deaths. However, specific taxes are susceptible to inflation, which may erode their effectiveness over time if not adjusted.

The findings support a strategic shift toward excise taxes that function as a tool for protecting public health and promoting responsible fiscal stewardship.

23

Hear O Israel: The Shema through the Lens of Neuroscience

Dwayne Simmons, Jennifer M. Gash (Baylor University), and Michael Folkerts (Pepperdine University)

In Deuteronomy 6:4–9, Moses prefaces the laws that he delivers to the Israelites with a theological proclamation and framing command commonly known as the "Shema." The Shema teaches the Israelites how to glorify God as an intergenerational community, and through the lens of an emerging neuroscientific understanding; it is also a structured attentional practice that predictively regulates our body in a metabolically efficient manner (allostasis). Therein, hearing is understood not merely as auditory sensation, but also as active listening shaped by attention networks that integrate sensory input, memory, language, and behavior.

This call engages large-scale brain networks, emphasizing selective focus, reorientation, and sustained commitment. The Shema links divine unity with attentional unity. Moses commands the Israelites to love God with a singularly focused, total devotion, which requires employing all of their capacity. Though this command is often understood as containing three separate parts which correspond to different implementations, it is one command: love God with your entire being. This requires writing it on your heart, using attentional networks so that it is encoded and becomes habitual.

Multimodal repetition of the Shema powerfully acts to regulate our brain's sense of uncertainty and decrease the body's metabolic demand. Beginning in childhood, the Shema neuroarchitects the world in a way that titrates uncertainty and strengthens one's transcendent connection with God into adulthood. Practicing the Shema as a community of intergenerational believers allows us to cultivate compassion through loving God together, making us more empathic as our brains interact with each other.

24

A Physicist's Perspective on the Triune God: Roadmaps to Wisdom for Science and Life

Alan Tai

The nature of the Triune God remains one of the most profound mysteries of the Christian faith, yet it is also a revealed truth. For many believers, however, the doctrine of the Trinity often appears as a "scattered puzzle" of complex theological concepts that are difficult to integrate into a coherent understanding. Scripture affirms both divine unity and relational distinction, as expressed in Jesus's declaration, *"I and the Father are one"* (John 10:30), and in His prayer, *"that they may all be one… just as you, Father, are in me, and I in you"* (John 17:21).

Building upon my 2025 ASA presentation, "Roadmaps to Wisdom," this poster presentation seeks to bridge the gap between scientific methodology and spiritual revelation by introducing *Roadmaps to Wisdom through Science and Life*—a framework designed to help believers visualize and cultivate an intimate, lived relationship with the Triune God. Central to this framework is the "Three Circles" roadmap, a visual tool that illustrates both the distinctiveness and unity of the Triune God.

Just as viewing the completed image of a jigsaw puzzle is essential for organizing scattered pieces into a coherent whole, a scientific roadmap functions as a guiding "picture" that helps reorganize biblical truths into a meaningful and vibrant vision. These roadmaps act as blueprints for exploring scriptural mysteries, transforming abstract doctrine into practical wisdom applicable to both human experience and spiritual life.

Exhibitors

We are pleased to welcome the following exhibitors to our meeting:

- AAAS Dialogue on Science, Ethics, and Religion (DoSER)
- BioLogos
- Canadian Science and Christian Affiliation (CSCA)
- Christian Engineering Society
- Environmental Science: Caring for God's Creation
- Evangelical Environmental Network
- Global Christian Book Fund
- Gordon College
- Gordon-Conwell Theological Seminary
- InterVarsity Christian Fellowship
- The Y refuge

Sponsorships

We are grateful for the following sponsor:

- InterVarsity Emerging Scholars Network

Authors

We are grateful for the following members selling their books:

- Anonymous ASA members
- Sid Niemeyer
- Dave Robbins

Advertisers

We are grateful for the following organizations:

- AAAS Dialogue on Science, Ethics, and Religion (DoSER)
- Bethel University
- BioLogos
- Covenant Christian Academy
- Environmental Science: Caring for God's Creation
- New College Berkeley
- Science for the Church
- Trinity Western University Faculty of Natural and Applied Sciences

Welcome, Student/Early Career Registrants!

1. Ladi Achimugu
2. Johnson Adebayo
3. Joshua Afzal
4. Eliel Akinbami
5. Juliana Antwi
6. Dolapo Anyanwu
7. Julianne Armijo
8. Valentina Asiedu
9. Jonas Attilus
10. Anita Azeem
11. Elliot Backman
12. Megan Behrmann
13. Cerena Bilong
14. Josh Boadu
15. Jenna Boone
16. Timothy Campbell
17. Aidan Carrier
18. Gianna Carrier
19. Joseph Cheung
20. Caroline Crompton
21. Amaya de Vin
22. Naomi DeVries
23. Ogochukwu Elisha-Wigwe
24. Chris English
25. Brandice Evans
26. Olufemi Fatunsin
27. Elaine Fung
28. Debbie Gaisie
29. Aaron Grawe
30. Matehya Grecula
31. Paul Griffioen
32. Karis Hagens
33. Maria Harmon
34. Seth Hart
35. Annie Henderson
36. Rosemarie Hunter
37. Hope Ingalls
38. Leytisha Jack
39. Kristin Kendall
40. Lauren Kim
41. Joseph Lin
42. Chloe Liu
43. Joanna Lumbsden-Pinto
44. Madison Lyon
45. Abigail Mace
46. Amona Major
47. Jean-Edward Moise
48. Rachael Mthiko
49. Marilyn Naeem
50. Jessica Neamtu
51. Oluwatosin Esther Obafunsho
52. Christian Osei
53. Finney Premkumar
54. Rachel Pryce
55. Islamiat (Abi) Raji
56. Matthew Ravichandran
57. Elijah Rivera
58. Rob Santiago
59. Uhjin Sim (Park)
60. Maria Straight
61. Kelly Vazquez
62. Rita Wang
63. Patrick Willing
64. Chun Yeung
65. Barkotel Zemenu
66. Adam Zhang

Thanks to Our Institutional Members!

Bethel University

Gordon College

Palm Beach Atlantic University

Trinity Western University

Index of 2026 Presenters

A

Achimugu, Ladi 5, 31
Afzal, Joshua 5, 31
Anderson, Noel W. 7, 26
Armijo, Julianne 4, 13
Arveson, Paul 5, 21
Attilus, Jonas 5, 31
Azeem, Anita 5, 32

B

Bilong, Cerena 5, 32
Boadu, Geoffrey 5, 32
Boone, Jennifer 8, 28
Boorse, Dorothy 6, 22

C

Campbell, David 5, 32
Campbell, Timothy 5, 33
Campbell, Victoria 8, 30
Cannon, Fred S. 4, 16
Carr, Paul H. 5, 33
Chang, Rocky 5, 33
Cornwell, Angie 8, 28–30
Cook, Kaye 8, 11
Craig, Darren 5, 19

D

de Vin, Amaya 8, 28
Denton, Richard Eugene 5, 33
Do Vale, Filliipe 7, 9, 25–27
Doan, J. Elizabeth 7, 25
Dokter, Christina 4, 13

E

Eagleson, Hannah 4–6, 13–15, 19–21, 22–24
Elisha-Wigwe, Ogochukwu 5, 34
English, Chris 5, 35

F

Fatunsin, Olufemi 6, 24
Fictorie, Carl 8, 28
Fletcher, Joel 6, 23
Fung, Elaine 5, 34

G

Gaisie, Deborah 5, 34
Garte, Sy 4, 18
Grawe, Aaron 7, 25
Gray, Terry M. 6, 22
Grecula , Matehya 5, 34
Green, Jim 8, 29
Griffioen, Paul 5, 35

H

Haarsma, Deborah 4, 16
Hairston, Romanita 6, 10
Halsmer, Dominic 7, 26
Harris, John 6, 9
Hart, Seth 5, 20
Hawkins, Lawrence 4, 14
Hodges, Ronald V. 5, 21
Horst, William 5, 19
Hunter, Rosemarie 5, 35

I

Ingalls, Hope 7, 25

J

Jack, Leytisha 5, 36
Jelsma, Tony 4, 17
Jordan, William 4, 18
Ju Miller, Grace 6, 23

L

Linquist, Erik 4, 16–18
Lin, Jimmy 5, 10
Liu, Chloe 5, 35
Looy, Heather 7, 25–27
Lumbsden-Pinto, Joanna 4, 6, 13–15, 23

M

Ma, Xiaomin 5, 35, 36
Mace, Abby 5, 33
Major, Amona 5, 36
Marshall, Perry 4, 17
McCullough, W. Scott 4, 14
McDonough, Sean 6, 7, 11, 25–27

N

Naeem, Marilyn 4, 16
Neamtu, Jessica 7, 26

O

Oleskiewicz, Dana 4, 8, 18, 28–30
Osei, Christian 5, 36

P

Painter, James 4, 14
Premkumar, Finney 6, 22

R

Raji, Islamiat Abidemi 6, 24
Reyes-Ton, Ciara 7, 27
Richart, Sarah M. 4, 13
Robbins, David B. 8, 29

S

Santiago, Rob Ethan 5, 20
Sim, Uhjin 4, 15
Simmons, Dwayne 5, 21, 36
Sossa, Kenneth G. 4, 15
Story, Peter 7, 27
Strand, Mark A. 7, 27
Strauss, Robert 4, 17
Stump, Jim 5, 20

T

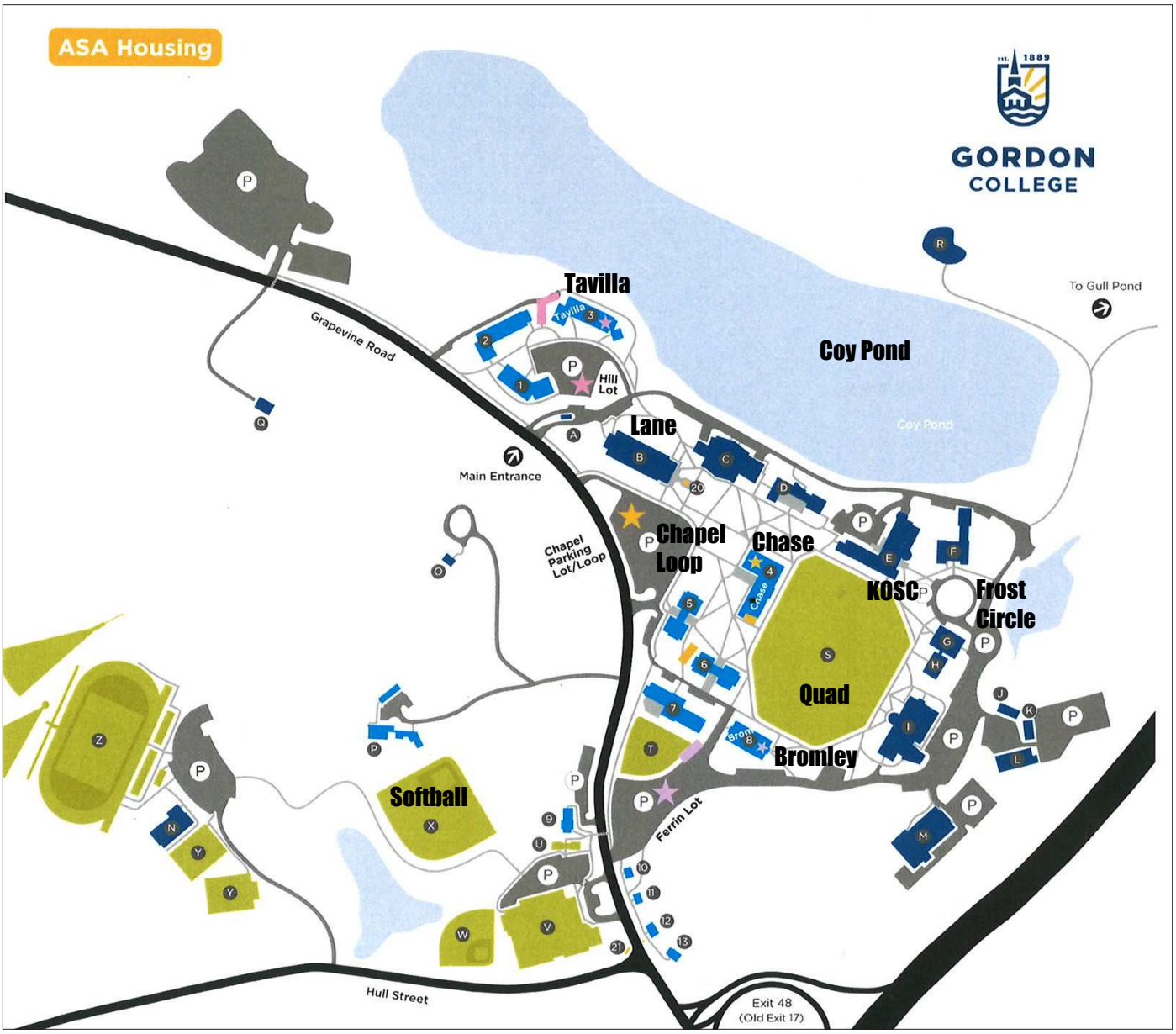
Tai, Alan 5, 37

V

Vazquez, Kelly J. 6, 23

W

Warren, E. Janet 4, 15
Wiens, Roger C. 6, 24
Willing, Steven J. 5, 7, 19, 25–27
Wood, John 7, 25–27
Wood, Kurt 4, 25



Campus Programming

KOSC

- Loggia ..... Meeting and Lodging Registration, Mixer, Beverage Breaks, Ice Cream Social
- Chairman's Room ..... Exhibitors
- MacDonald Auditorium ..... Devotions, Worship, Parallel Sessions A, Plenary Sessions
- Fowler ..... Parallel Sessions B
- Rooms 124, 127, 214 ..... Parallel Sessions C and D
- 2nd Floor Lobby / Lounge ..... Posters

Lane Student Center

- Tupper Hall ..... Meals
- Chesters ..... Retreat, Meal Meet-Ups
- Lion's Den ..... Meal Meet-Ups
- President's Dining Room ..... Meal Meet-Up

Campus Housing

Travella **Chase** **Bromley**

Mission

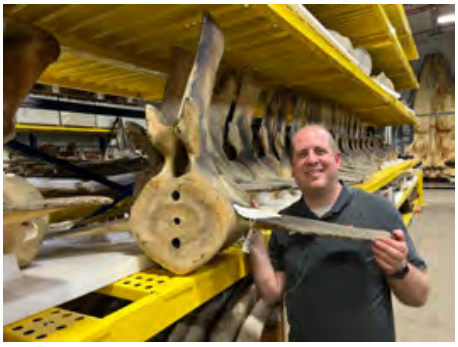
The mission of ASA is interpreting, integrating, and communicating the discoveries of science with insights of Scripture and Christian theology.

Vision

The ASA is a fellowship of Christians in the sciences that supports our members' spiritual, intellectual, and professional formation to serve society, science, and the church.

Values

Intellectual Humility
Courageous Curiosity
Radical Hospitality



"What I appreciate most about the ASA is that it provides a space for Christians in the sciences to come together and discuss difficult issues in a spirit of gracious dialogue."

–Ryan Bebej, ASA Fellow & Associate Professor of Biology, Calvin University

"The ASA has become a home for me, and a center point for my development as a Christian and a scientist. The ASA has given me access to incredible, influential people from various fields who have inspired me, encouraged me, and opened many doors for my career. It has also given me a platform to give back to the ASA community through leadership and service."

–Veronica Frans, PhD Candidate in Fisheries & Wildlife, Michigan State University