



## Who are the Guardians of Truth and Integrity for 2024?\*

Adam Craig and Carl Taswell†

### Abstract

On October 9th, Brain Health Alliance (BHA, a 501c3 nonprofit organization) hosted Guardians 2024, our third annual conference entitled “Who are the Guardians of Truth and Integrity?” Open to the public, the conference provided a conversation about current challenges in maintaining the integrity of the scientific record and fostering ethical standards in various domains. The presentations highlighted the critical role of collaboration, transparency, reproducibility, and accountability in scientific research and societal practices. With the focus theme for 2024 devoted to *people talking to people with civility, courtesy, tolerance, and respect*, invited speakers emphasized the importance of collective action and individual commitment to fostering meaningful human connections, promoting research integrity, and advancing medical, scientific, and societal progress.

### Keyphrases

Research integrity, citational justice, publishing ethics, scientific truth, academic ghosting, FAIR Metrics.

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### Guardians 2024 Program

Guardians Conferences ask the question “*Who are the Guardians of Truth and Integrity?*” and discuss the use of mis-information, dis-information, anti-information, caco-information, and mal-information (S. K. Taswell, Athreya, et al. 2021) in science, engineering, and medicine. Guardians 2024 was held on October 9th as an online event with 5 invited speakers:

- Natalie Burke, Common Health Action, Washington DC
- Philip Koch, Colorado School of Mines, Golden CO
- Maggie Mulqueen, Brookline MA
- Joshua Rubin, University of Michigan, Ann Arbor MI
- Olivia Sagan, Queen Margaret University, Edinburgh UK

- 1 who discussed this year’s focus theme of *people talking to people with civility, courtesy, tolerance, and respect*. The workshop began with recognition of Mr. Peter Ash as our 2024 Guardian of Truth and Integrity.

### Guardians 2024 Opening Session

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  - 09:00 [Julie Neidich](#), Honoring our BHA VI 2024 Guardian: Peter Ash (2024 Guardian [slides](#) and [video](#))
  - 09:15 [Peter Ash](#), *Under the Same Sun*: Changing Hearts and Minds about Albinism ([Learn More](#) about UTSS and [10 years](#) of UTSS)

### Invited Talks

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  - 10:00 [Maggie Mulqueen](#), What Does Care Look Like in 2024? Caring for Others in Times of Dissent and Distress ([MM video](#))
  - 11:00 [Philip Koch](#), Holding Their Feet to Our Fires: Rural Emergency Services and the Struggle to Serve in the Face of Ignorance and Corruption ([PK slides](#), [PK video](#))
  - 12:00 [Natalie Burke](#), The Journey Towards Health Equity: Taking Uncomfortable Steps to Change Hearts and Minds ([NB slides](#), [NB video](#))

\*Presented at [Guardians 2024](#) with [slides](#) and [video](#).

†Correspondence to [ctaswell@bhavi.us](mailto:ctaswell@bhavi.us).

- 13:00 [Joshua Rubin](#), Musical Chairs for Darvomanics: How Anti-Learning Systems Enable Systemic Abuses of Power in Academia and What We Can Do Together to Help Them Learn ([JR slides](#), [JR video](#))
- 14:00 [Olivia Sagan](#), Loneliness, Social Cohesion and the Role of Art Making ([OS slides](#), [OS video](#))

## Technical Talks

- 15:00 Micha Burkhardt, UOL Germany, Quantifying Similarities between fMRI Processing Pipelines for Efficient Multiverse Analysis ([MB slides](#), [MB video](#))
- 15:20 Pan-Jun Kim, HKBU Hong Kong, Long-Term Innovative Potential of Genetic Research and its Suppression ([PK slides](#), [PK video](#))
- 15:40 Adam Craig, BHAUSA, From Open Review to Reproducible Review: FAIR Metrics Analysis of Peer Reviews for Brain Informatics Literature ([AC slides](#), [AC video](#))

## Guardians 2024 Closing Session

- 16:00 Carl Taswell, BHAUSA, Reproducibility, Validity, and Integrity in Scholarly Research: Questions Seeking Answers ([CT slides](#), [CT video](#))

All slides and recordings of the talks are also available at [Guardians 2024 Program](#). Background references on reproducibility, validity, and integrity for the Guardians Conferences include [Craig, Ambati, et al. \(2019\)](#); [Athreya, S. K. Taswell, et al. \(2020\)](#); [S. K. Taswell, Triggler, et al. \(2020\)](#); [S. K. Taswell, Athreya, et al. \(2021\)](#); [Craig, Lee, et al. \(2022\)](#); [C. Taswell \(2022\)](#); [Athreya, Craig, et al. \(2023\)](#); [C. Taswell \(2023\)](#).

## 2024 Guardian: Peter Ash

Brain Health Alliance recognized and honored Peter Ash as the BHAUSA 2024 Guardian of Truth and Integrity.

Julie Neidich offered a tribute to Peter Ash honoring him as the BHAUSA 2024 Guardian for his tireless advocacy on behalf of individuals with albinism. Ash, the founder of Under the Same Sun, has dedicated his life to protecting and empowering people with albinism, particularly in African nations where superstition and discrimination are rampant. Neidich highlighted the severe challenges faced by individuals with albinism, including social ostracism, physical attacks, and even murder for their body parts, which are believed to possess magical properties (United Nations, 2013). Ash's organization, Under the Same Sun, has been instrumental in creating safe spaces, providing education, and advocating for policy changes to protect the rights of people with albinism.

Following Neidich's tribute, Peter Ash participated in a Q&A session where he addressed the misconceptions and superstitions surrounding albinism, particularly in African countries. Ash discussed the negative portrayal of individuals with albinism in media, the critical issue of skin cancer among people with albinism, and the personal risks he faced during his advocacy work. He emphasized the importance of accurate representation, grassroots education, and international advocacy in improving the lives of individuals with albinism.

## Maggie Mulqueen

[Mulqueen \(2024\)](#), "What Does Care Look Like in 2024? Caring for Others in Times of Dissent and Distress", emphasized the critical role of listening in enhancing human connection and well-being. She identified listening as a fundamental yet often overlooked component of care in contemporary culture, which tends to prioritize talking and winning over genuine dialogue. Dr. Mulqueen outlined several essential components of effective listening, including genuine interest, trustworthiness, and setting boundaries. She also explored the complexities of listening in the digital age and stressed the importance of listening to oneself as a form of self-care.

## Philip Koch

[Koch \(2024\)](#), "Holding Their Feet to Our Fires: Rural Emergency Services and the Struggle to Serve in the Face of Ignorance and Corruption", provided an insightful overview of the challenges faced by rural emergency services, particularly volunteer firefighters in Colorado. Koch highlighted the systemic issues that impede effective emergency response, including the politicization of board elections and the lack of knowledge among elected officials. He recounted the failed attempt to consolidate three fire protection districts due to misinformation and unethical tactics by opponents. Koch emphasized the need for informed and ethical governance in emergency services to ensure public safety.

## Natalie Burke

[Burke \(2024\)](#), "The Journey Towards Health Equity: Taking Uncomfortable Steps to Change Hearts and Minds", focused on the persistent inequities in healthcare and the broader implications of social identity, bias, and systemic racism for health outcomes. Burke highlighted the stark disparities in care practices, such as the lack of vaginal births after cesarean sections (VBACs) for African-American women. She emphasized the importance of addressing these inequities by embracing discomfort and understanding the impact of social identity on health equity. Burke provided actionable steps to achieve health equity, including disrupting bias and racism, re-examining racially biased algorithms, and teaching the history of systemic inequities.

## Joshua Rubin

[Rubin \(2024\)](#), "Musical Chairs for Darvomanics: How Anti-Learning Systems Enable Systemic Abuses of Power in Academia and What We Can Do Together to Help Them Learn", addressed systemic abuses of power within academic institutions, focusing on issues of sexual predation, racism, and the stifling of free speech. Rubin highlighted the importance of transparency, accountability, and the role of individuals in fostering institutional change. He recounted the systemic sexual abuse perpetrated by Dr. Robert Anderson at the University of Michigan and the critical role of survivors and allies in demanding accountability and justice. Rubin emphasized the need for learning health systems to prevent future abuses and promote institutional integrity.

## Olivia Sagan

[Sagan \(2024\)](#), "Loneliness, Social Cohesion and the Role of Art Making", explored how art can mitigate loneliness and enhance social cohesion. Sagan emphasized her phenomenological approach and the importance of understanding the cultural context and heterogeneity of

loneliness experiences. She discussed the positive impact of community art making on well-being and social cohesion, citing studies that support the role of the arts in fostering human connection and alleviating loneliness. Sagan advocated for accessible, equitable, and inclusive community art programs to enhance social cohesion and well-being.

## Micha Burkhardt

Burkhardt et al. (2024), “Quantifying Similarities Between fMRI Processing Pipelines for Efficient Multiverse Analysis”, focused on developing methods to improve the robustness and reproducibility of fMRI data analysis. Burkhardt highlighted the challenges associated with the inherent noise and complexity of fMRI data and the need for multiverse analysis to address the many choices researchers face when selecting a processing pipeline. He discussed the limitations of current approaches and proposed a novel method based on a graph convolutional neural network to assess the similarity between pipelines. Burkhardt emphasized the potential of this method to improve data analysis efficiency and reproducibility.

## Pan-Jun Kim

Pan-Jun Kim’s presentation, “Long-Term Innovative Potential of Genetic Research and its Suppression”, focused on the impact of commercial pressures on scientific research, using genetic research as a case study. Kim discussed how industry-supported research often favors short-term gains and risk aversion, which can stifle long-term innovation. He analyzed data from papers and patents to examine the influence of commercial pressures on genetic research and highlighted the importance of new combinations of genes in fostering innovation. Kim emphasized the need for a balanced approach to research funding and direction to sustain long-term progress.

## Adam Craig

Craig and C. Taswell (2024), “From Open Review to Reproducible Review: FAIR Metrics Analysis of Peer Reviews for Brain Informatics Literature”, addressed the importance of developing the Fair Attribution to Indexed Reports (FAIR) Metrics to evaluate the quality of open peer reviews. Craig highlighted the challenges associated with assessing peer review quality and the need for metrics that encourage proper attribution and rigorous referencing practices. He discussed the design principles for FAIR Metrics and their application to peer reviews. Craig emphasized the potential of these metrics to improve the transparency, reproducibility, and overall quality of peer reviews.

## Carl Taswell

C. Taswell (2024) delivered the closing remarks on “reproducibility, validity, and integrity” with “questions seeking answers”, emphasizing the importance of ongoing inquiry and reflection in the scientific community. He reiterated the need to address the persistent issue of willful disregard for reproducibility and integrity in scholarly research and the need for better accountability. Taswell termed the common pattern of abusive behavior by those in positions of power “grooming, gaslighting, ghosting, and gleaning” (4G) and encouraged the development of new metrics to measure collective, community, social, and public health. He called for societal action to promote civility, courtesy, tolerance, and respect in public discourse and concluded by urging attendees to contribute positively to their communities through volunteerism and

acts of kindness.

## Citation

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Authors: Adam Craig and Carl Taswell

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Contact: [ctaswell@bhavi.us](mailto:ctaswell@bhavi.us)

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