

Tenth International Conference on Ethics in Biology, Engineering and Medicine

**April 24th & 25th, 2021
Seattle, WA**



Preliminary Program

University of Washington, Seattle, WA

Welcome from the Conference Chair

I am pleased to welcome you to the Tenth International Conference on Ethics in Biology, Engineering & Medicine. Our goal is to bring together biomedical engineers, scientists, clinicians, dentists, philosophers, lawyers, students and representatives from industry to discuss the ethical issues that face us as we make new advances in biology, engineering, dentistry and medicine, and as we develop new implants, devices, and drugs to improve medical and dental treatments and the quality of life of our patients. The papers to be presented represent a broad spectrum of topics reflecting the exciting, but sometimes controversial nature of many of the new advances in biology, engineering, dentistry and medicine.

This conference is sponsored by the University of Washington. It is co-sponsored by the University of Washington-Bothell, Seattle University, Florida International University, International Federation of Medical and Biological Engineering (IFMBE), The American College of Dentists, Biomedical Engineering Society (BMES), the American Institute for Medical and Biological Engineering (IFMBE), Sigma Xi and several other societies, institutions, and companies.

Many people contributed to the success of this conference. I would like to thank the Keynote speakers, invited lecturers, the authors, session moderators, and the staff. The speakers are also encouraged to submit their papers for publication in *Ethics in Biology, Engineering and Medicine: An International Journal*. I am sure that you shall find this conference intellectually stimulating and a highly enjoyable experience.

Welcome to Seattle, Washington.

Subrata Saha

Subrata Saha, PhD, Conference Chair
Department of Restorative Dentistry, School of Dentistry
University of Washington,
Seattle, WA

Educational Objectives

At the conclusion of this conference, participants will be aware of:

- Ethical guidelines for the development of new medical devices and new potential treatment modalities.
- Ethical issues involved in clinical trials and animal experiments.
- Conflicts of interest and regulatory issues for biomedical research.
- Research Integrity and Responsible Conduct of Research.

Target Audience

Engineers, Scientists, Physicians, Dentists, Lawyers, and graduate, medical, dental and undergraduate students.

Website

The program information can be obtained from

<https://dental.washington.edu/restorative-dentistry/10th-international-conference-on-ethics/>

Registration

Online registration and housing information are available from

<https://washington.irisregistration.com/Form/4275>

Meeting site

All sessions will be held at the Hogness Auditorium, Room A420, or at the Turner Auditorium, Room D209, Health Science Center, University of Washington, 1959 NE Pacific street, Seattle, Washington, 98105

CDE Credit

Continuing Dental Education credits will be available. The forms will be distributed during registration. Please contact the CDE department for more information:

Continuing Dental Education, University of Washington

Mail: Box 357137, Seattle, WA 98195-7137

Phone: (206) 543-5448, Toll Free: (866) 791-1278

Web: www.uwcde.com, Email: dentalce@uw.edu

Hotel Information

A block of rooms has been reserved at the following hotel, at a special rate of \$ 159.00 plus tax, for single or double occupancy.

Silver Cloud Hotel

5036 25th Ave. NE

Seattle, Washington 98105

(located near the University of Washington campus)

Website: <https://www.silvercloud.com/university/>

Individuals should call the hotel directly at 1-800-205-6940 to make reservations. To receive the special rate, please mention the group name: "10th International Conference on Ethics in Biology, Engineering, and Medicine", at the time of making a reservation.

Please note that the special rate is valid no later than **Tuesday, March 24, 2021**.

Agenda

Saturday, April 24th 2021

TIME		
8:00 AM-4:00 PM	REGISTRATION	
8:30 AM	PLENARY SESSION I :Hogness Auditorium A420 WELCOMING REMARKS Gary T. Chiodo, DMD, FACD Professor and Dean, School of Dentistry, University of Washington, Seattle, WA	
8:45 AM	ANNOUNCEMENT Subrata Saha, PhD Conference Chair, University of Washington, Seattle, WA	
9:00 AM	KEYNOTE I Evolving Issue Related to Conflict of Interest in Biomedical Research Howard Bauchner, MD Editor in Chief, Journal of American Medical Association	
9:40 AM	Coffee Break	
	Hogness Auditorium A420 <u>Session I : Ethical Issues in Clinical Care I</u> Co-chairs: R. Shane Barton, MD, FAOA. LSU Health Science Center, Shreveport, LA TBA	Turner Auditorium D209 <u>Session II: Ethical Issues in Biomedical Engineering</u> Co-chairs: Shankar Krishnan, PhD Wentworth Institute of Technology, Boston, MA TBA
10:00 AM	Balancing Hope and Torture: Employing Novel Biomedical Therapies in Desperate Situations in the Pediatric Cardiac ICU. Mithya Lewis-Newby, MD, MPH University of Washington, Seattle, WA	10:00 AM INVITED LECTURE: Ethical Implications of Medical Product Market Size Estimates Arthur J. Cury, PhD Northeastern University, Boston, MA
10:20 AM	The Ethical Complexities of Kidney Dialysis Buddy D. Ratner, PhD University of Washington, Seattle, WA	10:30 AM Why Modelling Reproducibility is an Ethical Issue, and How to Provide it James B. Bassingthwaigthe, MD, PhD University of Washington, Seattle, WA
10:40 AM	Ethical Considerations In the Management of Fragility Fractures	10:50 AM Ethics of Using Animal Models as Predictions of Human Response in Tissue Engineering

Shivleen Gill, MBBS , MS, Suhirad Khokhar.
Akshay Malhotra, VedantVaksha, MBBS, MS
Complete Orthopedics, Stony Brook, NY

Nakul Karkare, MD
Lenox Hill Hospital. New York, NY

11:00 AM **Speaking Truth in Radiology: Theory and Practice**

David Dinhofer, MD, MSMI, FACR

11:20 AM **TBA**

11:40 AM **Ethical Issues in International Clinical Trials with Vulnerable Population in Developing Countries: The Case of Pfizer Meningitis Fatal Drug Trial on Children in Nigeria**

Chiedu Obi, PhD
Duquesne University, Pittsburgh, PA

12:00 PM **Lunch**

PLENARY SESSION II :Hogness Auditorium A420

1:00 PM **KEYNOTE II**

Current Ethical Challenge in Stem Cell Research

Dr. Jeremy Sugarman, MD, MPH, MA
Johns Hopkins University, Baltimore, MD

Session III: Ethical Issues in Clinical Care II

Hogness Auditorium A420

Co-chairs:
R. Shane Barton, MD, FAOA
LSU Health Science Center, Shreveport, LA
TBA

1:50 PM **Clinical Trials in Osteoporosis Research: Ethical Considerations**

Shivleen Gill, MBBS , MS, Suhirad Khokhar.
Akshay Malhotra, VedantVaksha, MD, MS
Complete Orthopedics, Stony Brook, NY
Nakul Karkare, MD.
Lenox Hill Hospital. New York, NY

Nancy Pleshko, PhD
Temple University, Philadelphia, PA.

11:10 AM **Ethical Issues in Tissue Engineering**

RupakDua, PhD
Hampton University, Hampton, VA

11:30 AM **Inclusion in Research: Much Work to be Done**

Catherine Spong, MD
UT Southwestern Medical Center, Dallas, TX

Session IV: Bioethics I

Turner Auditorium D209
Co-chairs:
Shari L. Dworkin, PhD, MS
University of Washington Bothell, Bothell, WA
TBA

1:50 PM **4D Printing in Medicine and Healthcare: An Anticipatory Ethical Analysis**

Richard L. Wilson. PhD
Towson University, Towson, MD
University of Baltimore, Baltimore, MD

2:10 PM **Is Chronic Pain Innocent Suffering?**
Mark D. Sullivan, MD, PhD
University of Washington, Seattle, WA

2:30PM **The Best Healthcare System**
Wade L. Robison, PhD
Rochester Institute of Technology, Rochester, NY

2:10 PM **How Good People do Unethical Things: Cognitive Bias and Moral Disengagement.**
E. Bernadette McKinney, JD, PhD
University of Texas Medical Branch, Galveston, TX

2:30 PM **Care Ethics: Transferring Best Practices from Biology, Engineering and Medicine to Improve Business Practices.**
Elizabeth Robson, JD, Christine Perakslis, EdD, ShiffoniSukhala
Johnson & Wales University, Providence, RI

2:50 PM **Coffee Break**

Session V: Bioethics II
Hogness Auditorium A420
Co-chairs:
Wade L. Robison, PhD
Rochester Institute of Technology, Rochester, NY
TBA

Session VI: Ethics & Medical Education
Turner Auditorium D209
Co-chairs:
Kahlia Keita, MA, JD.
MedStar Washington Hospital Center, Washington DC
TBA

3:20 PM **INVITED LECTURE: Ethical Implications of CRISPR Clinical Trials in Pediatrics**
Benjamin S. Wilfond MD.
University of Washington, Seattle, WA
Seattle Children's Hospital, Seattle, WA

3:20 PM **Modern Surgical Education and the Principle of Primum Non Nocere**
R. Shane Barton, MD, FAOA.
LSU Health Science Center, Shreveport, LA

3:50 PM **Bioethical Guidelines Must Include Cultural and Ethnic Values**
Ram P. Agarwal, PhD
University of Miami, Coral Gables, FL

3:40 PM **The Ethics of Advising Low-Performance College Students Aspiring for Professional School**
Gregory Wm. Buck, PhD
Texas A&M University, Corpus Christi, TX

4:10 PM **Ethical Dimensions of Gender Verification Testing of Women Athletes in Competitive Sport**
Shari L. Dworkin, PhD, MS
University of Washington Bothell, Bothell, WA

4:00 PM **Innovative Pedagogy for Ethics in Undergraduate Biomedical Engineering Curriculum**
Shankar Krishnan, PhD
Wentworth Institute of Technology, Boston, MA

4:30 PM **Eco-Violence: A Threat to Global Health**

4:20 PM **Trends in Dental Ethics Curricula: Current and Future Opportunities**

John Mark Ogu, PhD
Duquesne University, Pittsburgh, PA

4:50 PM **Moral Criteria for Selecting People in Research**

Mircea Leabu, PhD and Mariana Leabu
"Victor Babes" National Institute of Pathology,
Bucharest, Romania

Lisa Heaton, PhD
University of Washington, Seattle, WA

4:40 PM

**Technologies, Artifacts, and Case Based Analysis.
A Methodology for Introducing Anticipatory
Biomedical Ethics**

Richard L. Wilson, PhD
Towson University, Towson, MD; University of
Baltimore, Baltimore, MD

6:00 PM **Banquet**

The banquet will take place on Saturday at 6:00 PM, April 24, 2021 at Ivar's Salmon House, 401 North Lake Way, Seattle, WA 98105, (206) 632-0732. The banquet speaker will be Dr. Thomas Budinger, MD, PhD, from the Lawrence Livermore Laboratory and University of California, Berkeley, CA. Tickets are required for the banquet.

Agenda

Sunday, April 25th 2021

TIME

8:00 AM-
4:00 PM

REGISTRATION

PLENARY SESSION III :Hogness Auditorium A420

8:30 AM

ANNOUNCEMENT

Subrata Saha, PhD
Conference Chair, University of Washington, Seattle, WA

8:40 AM

KEYNOTE III

Onco-ethics: Big Data, Artificial Intelligence, Virtual Reality and Patient

Kenneth W. Goodman PhD, FACMI, FACE
Miller School of Medicine, University of Miami, Miami,
FL

9:20 AM

Coffee Break

Symposium: Ethical Issues in Dentistry

Hogness Auditorium A420

9:50 AM

WELCOMING REMARKS

Daniel C.N. Chan, DMD, MS

Session VIII : Ethics & Engineering Developments

Turner Auditorium D209

Co-chairs:

Nathan Colaner, PhD
Seattle University, Seattle, WA

TBA

Chair & Professor, Dept. Restorative Dentistry,
School of Dentistry, University of Washington

Susan Adams, DDS

Chair of Washington Section of the American
College of Dentists

Session VII : Ethics of New Technologies

Co- chairs:

Susan Puglese, DDS

Christinacare, Wilmington, DL

Thomas Dodson, DMD, MPH, FACS

University of Washington, Seattle, WA

10:00 AM

**INVITED LECTURE: Ethics of Introducing New
Technologies in Dental Practice**

David Ozar, PhD

Loyola University, Chicago, IL.

10:30 AM

**INVITED LECTURE: Technology is Changing the
Ethical Landscape in Dentistry**

David W. Chamber, EdM, MBA, PhD

University of the Pacific School of Dentistry, San
Francisco, CA

11:00 AM

**Emerging Medical Technologies, and
Anticipatory Medical Ethics**

Richard L. Wilson, PhD

Towson University, Towson, MD

University of Baltimore, Baltimore, MD

11:20 AM

**Ethical Approach to Oral and Maxillofacial
Surgery and Rehabilitation**

Amit Chattopadhyay, BDS, PhD

Case Western Reserve University, Cleveland, OH

11:40 AM

**Ethics in Materials Selections for Grafting
Purposes**

Ram M. Vanderhobli, DDS, MS

University of California San Francisco, San

10:00 AM

**INVITED LECTURE: Self-driving Vehicles: A
Precautionary Tale**

Michael Quinn, PhD

Dean, College of Science and Engineering
Seattle University, Seattle, WA

10:30 AM

**INVITED LECTURE: Ethical Challenges Integral to
Development of AI Based Medical Assistants**

George Khushf, PhD

University of South Carolina, Columbia, SC

11:00 AM

TBA

11:20 AM

**Framing the Ethics of Artificial Intelligence Within
the Larger Scientific Community: Issues,
Challenges, and Roadblocks**

Uma G. Gupta, PhD

University of South Carolina at Upstate,
Spartanburg, SC

11:40 AM

**Ethical Implications of the Production and Use of
Biofuels and Their Relationships to Environment
and Society**

Baishali Kanjilal, PhD

Rowan University, Glassboro, NJ

Subrata Saha, PhD

University of Washington, Seattle, WA

Francisco, CA

12:00 PM

Lunch

Symposium I: Ethical Issues in Dentistry

Hogness Auditorium A420

Session IX: Ethical Issues in Dentistry

Co- chairs: Sara Gordon, DDS, MS
University of Washington, Seattle, WA
TBA

1:00 PM

A Clinical Ethics Approach to Dental Patient Care

Lawrence P. Garetto, PhD and Lauren E. Hagel, DDS
University of Washington, Seattle, WA

1:20 PM

Taking the High Road: My Ethical Conflicts and Their Professional Consequences

Lawrence Gettleman, DMD
University of Louisville, Louisville, KY

1:40 PM

Informed Consent: Ethical Challenges as the Profession has Evolved

Ajay Kashi, DDS, PhD, FICOI
Rochester, New York

2:00 PM

Unconfirmed Diagnosis and Misdiagnosis in Specialist Dental Practice: Ethical Challenges and Implications in Oral Health Care Delivery

Prof. Flix N. Chukwuneke
University of Nigeria Nsukka, Nsukka, Enugu State, Nigeria

Symposium II: Ethical Issues in Cancer Research and Treatment

Turner Auditorium D209

Session X : Ethical Issues in Cancer Research and Treatment

Co-chairs:
TBA
TBA

1:00 PM

Uncertainty and Ethics in the Treatment of Patients with Hematologic Malignancies 2020

H. Joachim Deeg, MD
Fred Hutchinson Cancer Research Center and University of Washington, Seattle, WA

1:20 PM

The Ethics of Observing Differential Thyroid Cancer in the U.S. Now That We Have Some Outcomes Data

Brendon C. Stack, Jr., MD, FACS, FACE
University of Arkansas for Medical Sciences, Little Rock, AR

1:40 PM

Bioethical Considerations in Personalized Medicine

Raj R. Rao, Ph.D.
University of Arkansas, Fayetteville, AR

2:00 PM

Ethical Issues of the Use of Experimental Treatments: A Delicate Balance Between Uncertainty and Possibility

2:20 PM	Professional Ethics -- What do you Really Have to Lose? Jeffrey Bennett, DDS	Chiedu Obi, PhD Duquesne University, Pittsburgh, PA
2:40 PM	Dentists' Ethical Involvement in the Treatment of Sleep Breathing Issues: Who is the Gatekeeper? Rodney B. Wentworth, DDS University of Washington, Seattle, WA	2:20 PM TBA 2:40 PM The Genome of Research Ethics in Precision Health Marilyn J. Hammer, PhD, DC, RN, FAAN Dana-Farber Cancer Institute, Boston, MA
3:00 PM	Coffee Break	
	Session XI :Neuroethics Hogness Auditorium A420 Co-chairs: Zachary C. Danziger, PhD Florida International University, Miami, FL TBA	Session XII : Research Integrity & Responsible Conduct of Research Turner Auditorium D209 Co-chairs: Sue Herring, PhD University of Washington, Seattle, WA TBA
3:30 PM	Protecting Agency in Neurotechnology Development: Ethical Issues for Implantable Neural Devices Sara Goering, PhD University of Washington, Seattle, WA	3:30 PM INVITED LECTURE: Fostering Ethical Conduct of Research Adil E. Shamoo, PhD Editor in-Chief. Accountability in Research. University of Maryland School of Medicine, Baltimore, MD
3:50 PM	Pairing Ethical Analysis with Present and Future Stages of Brain-Computer Interface Technology Zachary C Danziger, PhD, Florida International University, Miami, FL	4:00 PM Managing Institutional Conflict of Interest at Academic Research Institutions Matthew McCoy, PhD University of Pennsylvania, Philadelphia, PA
4:10 PM	CRISPR and Cognitive Enhancement: An Anticipatory Ethical Analysis Richard L. Wilson, PhD Towson University, Towson, MD University of Baltimore, Baltimore, MD	4:30 PM The Pathogenesis of Research Misconduct Fernic C. Fong, MD University of Washington, Seattle, WA
		4:50 PM Data is Sacred. A Theme for the Development of Responsible Conduct of Research Training Programs

4:30 PM **“Yuck-To-Yippie”: How Technology Can Make Us More Human and More Moral to Tackle Emerging Complex Ethical Issues**

Peter I. Osuji, PhD
Duquesne university, Pittsburgh, PA

Challenges and Gender Diversity in Neurology Research

4:50 PM Janay Parish and Shefali Karkare, MD
Alexandra and Steven Cohen Children’s Medical Center, Long Island, NY

5:10 PM **End of Life Decision-Making: Brain Death and Vital Organ Transplantation – Does the Concept Still Work?**

Gail A. Van Norman, MD.
University of Washington, Seattle, WA

Poster Session

Note: All posters should be set up from 7:30 am to 8:30 am on Saturday , April 24th and removed at 4 pm on Sunday, April 25th. Additional poster presentations will be announced at the meeting.

Ethical Considerations in Dental Implants – An Overview

Aurobindo Saha, BDS and Prashant Tomar, BDS
West Bengal, India

5G, the Internet of Medical Things, and Anticipatory Ethics

Richard L. Wilson, PhD
Towson University, Towson, MD
University of Baltimore, Baltimore, MD

Philip DeShong, PhD
University of Maryland, College Park, MD

5:10 PM **TBA**

This conference is Co-sponsored or Endorsed by:

