

The First International
EMORY
TIBET
SYMPOSIUM
of Scholars and Scientists

BRIDGING
Buddhism
& Science
for Mutual Enrichment
December 18-20, 2016

Co-sponsored by The Dalai Lama Trust and Emory University
in collaboration with Drepung Monastic University
and The Library of Tibetan Works and Archives



Feb 2006: First Conversations

Geshe Lhakdor, LTWA director, visits Emory to explore collaboration on a sustainable and comprehensive monastic science curriculum.



2006-2007: Development Phase

Consultation with His Holiness the Dalai Lama and Emory faculty to create an infrastructure and curriculum for program execution.



2007: His Holiness Installed as Emory Presidential Distinguished Professor

ETSI presents His Holiness with first bilingual textbook.



2008: Official Public Launch of Emory-Tibet Science Initiative

ETSI is formally launched in Mundgod, India during the opening of the Drepung Loseling temple.



2008-2013: Pilot Phase

Five year curriculum designed and tested with two cohorts of nuns and monks at the College for Higher Tibetan Studies, Sarah of the Institute of Buddhist Dialectics.



2009: First Annual Conference on Standardizing Scientific Terms in Tibetan



2010: Tenzin Gyatso Science Scholars Program Launched

With support from the Dalai Lama Trust, first cohort of six monastic science scholars arrives at Emory for training.



2012: Graduation of First ETSI Cohort

First cohort of nuns and monks to complete five-year intensive summer training graduate in a ceremony presided over by His Holiness the Dalai Lama and Emory Vice-President Gary Hauk.



2014-2016: Implementation Phase - Launch

Six year long science program introduced to three monastic teaching sites in south India. Program works to refine curricula, address logistics, recruit faculty, institute assessment, and support start up of science and computer labs.



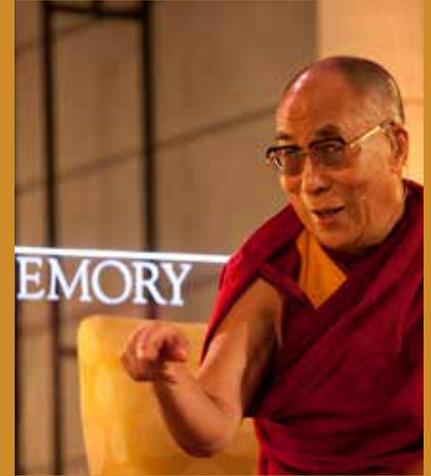
2017-2019: Implementation Phase - Expansion

Refinement of curricula for Years 4-6, recruitment of large faculty, working with monastic leaders and administrators to solve logistical and infrastructure challenges.

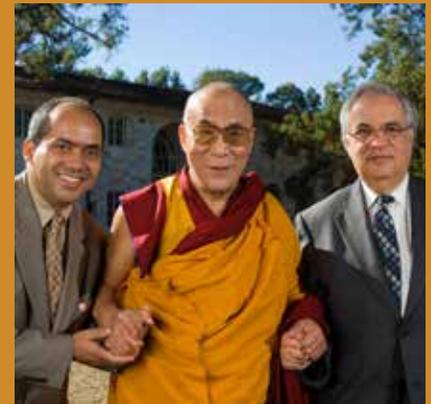


2020-2023: Implementation Phase - Sustainability

Transition from visiting instructors to indigenous monastic and lay Tibetan teachers; on-going support from ETSI via special workshops and teacher development programs.



His Holiness the Dalai Lama - Emory University Presidential Distinguished Professor



His Holiness the Dalai Lama with Emory-Tibet Partnership Co-Founders Lobsang Tenzin Negi and Dr. Robert Paul.



ETSI senior translators Tson-due Samphel and Geshe Dadul Namgyal

THE EMORY-TIBET SYMPOSIUM

THE Emory-Tibet Symposium: Bridging Buddhism and Science for Mutual Enrichment is truly a unique conference in that it represents the first time that Buddhist scholars and scientists will engage topics of shared interest as co-investigators examining similar questions from different perspectives. Co-sponsored by Emory University and the Dalai Lama Trust, with support from Drepung Monastery and the Library of Tibetan Works and Archives, the Symposium brings together internationally renowned scientists and emerging Tibetan monastic scholars trained in science for three days of dialogue with His Holiness the 14th Dalai Lama. Additionally, the symposium coincides with the celebration of Drepung Monastic University's 600th anniversary, a significant event in its own right commemorating a centuries-long commitment to academic excellence.

DREPUNG AND NALANDA Drepung was founded in 1416 by Jamyang Choeje, considered one of the four principal disciples of the great scholar and adept, Je Tsongkhapa (1357-1419), the spiritual father of the Gelugpa School of Tibetan Buddhism. Drepung, along with Gaden and Sera Monasteries, has been instrumental in preserving and extending a tradition of scholarly inquiry that extends beyond Je Tsongkhapa's prolific philosophical contributions to one of the world's first universities, Nalanda.

Located in what is now Bihar state in India, Nalanda was, without a doubt, a prestigious and far reaching center of learning, attracting students from Persia, Korea, Indonesia, Turkey, and China as well as India and neighboring countries over a period of eight hundred years. At its peak, Nalanda was home to thousands of scholars, among them many great panditas—masters of both Buddhism and secular knowledge. These included the two trailblazers of Mahayana Buddhism, known as “The World Ornaments:” Nagarjuna, an early abbot of Nalanda, who

transmitted the Profound View that became the foundation of Madhyamika philosophy, and Asanga who established the lineage of Vast Conduct, the underpinning of the Chittamantra view. These two systems of philosophy were studied in detail at Nalanda, along with two belonging to the Buddhist Hinayanist tradition, Vaibashika and Sautantrika. Scholars at Nalanda also performed comparative analysis of the major existing non-Buddhist philosophical systems in addition to studying other subjects including medicine, mathematics, astronomy, politics, logic, grammar, literature, the fine arts, and metaphysics. Nalanda thus exemplified an inclusive approach to scholarship—one that engaged an array of methodologies for framing and elucidating both the external world and human experience.

The Nalanda panditas are responsible for some of the greatest works in the Buddhist canon; *Shantideva's Bodhicharyavatara (A Guide to an Altruistic Way of Life)* is a masterpiece presenting a comprehensive account of human mind and emotion, and a systematic approach to effecting their transformation. It is regarded as the seminal text for the *lo jong*, or mind-training, tradition in Indo-Tibetan Buddhism. Kamalashila wrote one of the most important texts in Tibetan Buddhism regarding the stages of meditation; and Atisha transmitted the *lo jong* practices, in addition to writing a classic work on the graduated path to enlightenment that inspired Je Tsongkhapa's magnum opus, *The Great Treatise on the Stages of the Path to Enlightenment (Lamrim Chenmo)*. Today, these meditative practices and their secular descendants are the subject of scientific investigation—with ever more evidence testifying to their physical and psychological benefits.

The work of these groundbreaking intellects has been assiduously studied, critiqued, and illuminated by Tibetan Buddhist scholars until today, and the three great monastic universities kept Nalanda's legacy of analytical contemplation and debate alive after Nalanda's destruction by invaders in the 13th

century, and after Tibet's own invasion by Communist forces in 1959. Reestablished in exile in India, these great institutions returned to the land that gave rise to their scholarly forefathers and where they continue to follow the Buddha's advice:

“Monks and scholars should analyze well, like analyzing gold through scorching, cutting and rubbing. My words are not to be adopted for the sake of respect.”

With this exhortation some two thousand five hundred years ago, the Buddha distilled an approach to understanding the nature of reality—in order to transcend suffering—that did not rely simply on the faith of the believer. All of the great masters of Nalanda understood the profound necessity of combining contemplative practice with intellectual investigation and ethical actions, an understanding the Tibetan tradition continues to advocate. Thus monastic scholars using secular tools to advance their understanding of existence has a long-standing and illustrious precedent.

THE ROBERT A. PAUL EMORY-TIBET SCIENCE INITIATIVE

The symposium, then, is the natural outgrowth of the work of the Robert A. Paul Emory-Tibet Science Initiative (ETSI), a comprehensive educational program specifically designed to teach modern science to Tibetan monastics. The work of ETSI began in 2006 when His Holiness the Dalai Lama invited Emory University to collaborate with the Library of Tibetan Works and Archives (LTWA) on a comprehensive and sustainable science curriculum, an opportunity supported by the university. Dr. Robert Paul and Lobsang Tenzin Negi co-founded the initiative, and began recruiting experienced science faculty to develop the curricula for each of four subject areas: Philosophy of Science, Life Sciences, Physics and Neuroscience.

The ultimate goal of ETSI is to create bridges between complementary systems of knowledge by educating future scientific collaborators who can contribute to new discoveries in the science of mind and body. It intends to give Tibetan monastics new analytical tools while providing them with fresh perspectives on how to employ and adapt time-test-

ed, Buddhist, contemplative methodologies for the relief of suffering in the world. Additionally, scientists and science educators are encouraged to learn more about the Buddhist science of mind and what it can contribute to the understanding of human emotions, the nature of consciousness, and integrative approaches to health and well being.

A pilot program (2008–2013) trained ninety-one monks and nuns—divided into two cohorts—in biology, neuroscience, physics, and mathematics during six-week summer intensives taught in Dharamsala, India over a period of five years. At the end of the program, His Holiness the Dalai Lama and Emory University Vice President Dr. Gary Hauk presided over a graduation ceremony, celebrating this historic achievement.

ETSI then embarked in 2014 on a ten-year implementation phase at three monastic universities (Sera, Ganden, and Drepung) in south India, with three other smaller monasteries participating (Rato, Tashi Lumpo and Sakya Monastery of Mundgod). This program is comprised of summer intensives taught by faculty from Emory and other institutions, year-round study led by on-site instructors, translation and production of bilingual textbooks and instructional videos, and further curriculum refinement. Monks and nuns at other academic monastic institutions can participate in the ETSI program through the pedagogical materials created, which are available on-line and in hard copy.

ETSI also promotes the creation of a new lexicon of scientific terms in the Tibetan language through the work of translators at both Emory and the Library of Tibetan Works and Archives, and facilitates the Tenzin Gyatso Science Scholars program, which brings monastics to Emory for residencies in science education. Upon completion, the Tenzin Gyatso Science Scholars serve as indigenous monastic science teachers at their home monasteries in India, ensuring the program's long-term sustainability.

Both ETSI and the Emory-Tibet Symposium seek to fulfill His Holiness the Dalai Lama's vision for innovative programs that bridge the strengths of the Tibetan and western civilization for the mutual enrichment of both traditions, and ultimately, for the benefit of humanity.

PRESENTERS

HIS HOLINESS THE 14TH DALAI LAMA

MICHEL BITBOL, The French National Center for Scientific Research

SONAM CHOEPHEL, Drepung Loseling College

GAELE DESBORDES, Massachusetts General Hospital & Harvard Medical School

JOHN DURANT, Massachusetts Institute of Technology

SCOTT GILBERT, Swarthmore College

CHRISTOPHER IMPEY, University of Arizona

CHRISTOF KOCH, Allen Institute

GESHE LHAKDOR, Library of Tibetan Works and Archives

LOBSANG TENZIN NEGI, Emory University

NGAWANG NORBU, Sera Je College

ROBERT PAUL, Emory University

LODOE SANGPO, Gaden Jangtse College

KIMBERLY SCHONERT-REICHL, University of British Columbia

THABKHE, Sera Je College

CAROL WORTHMAN, Emory University

PROGRAM SCHEDULE

DAY ONE — SUNDAY, DECEMBER 18

9:00 - 11:30am

SESSION 1 **Welcome remarks**

SESSION

1

WITH His Holiness the Dalai Lama **PRESENTERS** Robert Paul, Michel Bitbol, Carol Worthman **PANELISTS** Tsondue Samphel, Geshe Lhakdor **MODERATED BY** Lobsang Tenzin Negi

PRESENTATION ABSTRACT — Robert A. Paul | *The 21st Century: A New Axial Age?*

The great contemporary scholar of religion Karen Armstrong has suggested that we now live in a new “Axial Age,” referring to a term used by the philosopher Karl Jaspers to identify the period in the middle of the first millennium BCE when original and far-reaching forms of thought were inaugurated by great figures across the Eurasian continent such as Plato and Aristotle in the West, and Gautama Buddha in India. In times of profound transformation, people must struggle with new and unprecedented conditions for which the old forms of knowledge and belief seem inadequate. As Armstrong writes, “they are attempting to build upon insights of the past in a way that will take human beings forward into the new world they have created for themselves.” This paper offers an overview of the historical circumstances that led to the first Axial Age, and shows how in the present era both modern western science and Eastern spirituality, well exemplified in the form of Mahayana Buddhism, magnificent as each one is, both seem inadequate without an integration with each other. As in the first axial Age, the global geographic situation is amenable to such a synthesis. Despite the great challenges now facing the world, the effort must be made to forge now ways of thinking, knowing, and acting that build on the best aspects of both traditions. The generations that is now coming into its own will be the one to lead the way in this momentous enterprise.

PRESENTATION ABSTRACT — Michel Bitbol | *Philosophy as a Bridge Between Science*

and Buddhism The dialogue between Buddhism and Science needs a philosophical evaluation. Here, I will mostly inquire into the status of science, which, according to philosophers from Kant to Varela, is not a revelation of the intrinsic nature of reality. Quantum mechanics makes this negative statement likely. Indeed, according to its most credible interpretation, quantum theory is only a formal tool to predict (probabilistically) phenomena relative to an instrumental context. This supports a Buddhist characterization of science as a branch of conventional knowledge with purely practical import. ¶ When science thus realizes its own limits, the associated materialistic worldview loses ground. For instance, it will be shown that the Buddhist claim according to which (subtle) consciousness is beginningless, is not incompatible with the scientific theory of evolution.

PRESENTATION ABSTRACT — *Carol Worthman | Learning from difference: dialogues of Buddhism and science in the ETSI* Building constructive exchange between two traditions, Buddhism and western science, despite their superficially diametric epistemologies offers enormous benefits not only to both parties but also to humanity as a model for deep engagement across shared strengths and great differences. The partnership is both creating a wealth of teaching and learning materials tailored to Tibetan monastic students, and enriching Tibetan language with a new science lexicon and literature. This experience reveals that productive exchange requires attention to points of similarity and difference in the traditions along three dimensions—knowledge and ontology, modes of inquiry, and means of transmission and learning. Mutual engagement by both parties yields dialogue that is sometimes amusing, often surprising, and always enlightening.

11:30am - 1:00pm

Lunch Break

1:00 - 3:00pm

SESSION 2 — PHILOSOPHY: **How is knowledge established, and what constitutes valid reasoning?**

WITH His Holiness the Dalai Lama **PRESENTERS** John Durant, Sonam Choephel **PANELISTS** Lobsang Gonpo, Julia Haas, Sonam Wangchuk **MODERATED BY** Mark Risjord

SESSION

2

PRESENTATION ABSTRACT — *John Durant | What is Science?* In this talk, I will criticize three common misunderstandings about the nature of science: that scientific knowledge is certain; that scientific knowledge is produced through the application of “the scientific method” and that scientists are entirely objective about their work. I will suggest that science cannot be understood as the work of single individuals. Rather, it is best seen as the product of a global culture devoted to the creation of reliable knowledge about the natural world.

PRESENTATION ABSTRACT — *Sonam Choephel | Knowledge or Valid Cognition in Buddhism* To build a meaningful, and mutually beneficial, bridge between Buddhism and science it is necessary for the two sides to learn about each other’s fundamental concepts and defining features—science, for example, as a collaborative and collective enterprise with its unique mode of inquiry and Buddhism as a reason driven religious system that has cultivated rich insights into the workings of mind. This presentation will provide a general outline of Buddhism, followed by a more detailed presentation on the Buddhist concept of knowledge and its production. In Buddhism, since knowledge, or valid cognition as it is technically known, of truth or reality is an essential intellectual tool required to remove ignorance, the root of all suffering, it needs to be incontrovertible and certain.

DAY ONE — SUNDAY, DECEMBER 18 *(continued)*

3:30 - 4:30pm

Q&A with presenters and panelists

4:30 - 6:00pm

Monastic Science Demonstrations*Drepung Loseling Meditation and Science Center*

7:00 - 8:30pm

Contemplative Research Panel*Drepung Loseling Debate Courtyard***PANELISTS** Corina Aguilar-Raab, University of Heidelberg; Gaelle Desbordes, Harvard University; Timothy Harrison, Emory University; Joseph Loizzo, Nalanda Institute for Contemplative Science**DAY TWO** — MONDAY, DECEMBER 19

9:00 - 11:30am

SESSION 3 — PHYSICS: **What are the fundamental constituents of the universe and how did it originate?**

SESSION

3**WITH** His Holiness the Dalai Lama **PRESENTERS** Chris Impey, Thabkhe**PANELISTS** Erin Bonning, Yundrung Konchok **MODERATED BY** Tsondue Samphel

PRESENTATION ABSTRACT — *Chris Impey | What are the Fundamental Constituents of the Universe and How Did it Originate?* The universe and its material constituents came into being 13.8 billion years ago in a singular and dramatic event called the big bang. From a situation of extreme temperature and density, space-time unfolded in an expansion that was initially exponential and later more gradual. The nature of the big bang at the instant of creation, and its cause, are still unclear. All current constituents of the universe were present at the creation.

Measurements with modern telescopes reveal that normal matter – protons, neutrons, and electrons – form only 5% of the material universe. About 99% of those atoms are hydrogen and helium, the two simplest elements, and the tiny residue of heavier elements was produced by fusion inside many generations of stars in the long history of the universe. About 23% of the universe is composed of dark matter, most likely a form of fundamental particle that does not interact with radiation. Dark matter provides the mass that holds all galaxies together, including the Milky Way. The largest ingredient of the universe is immaterial: the 72% that is in the form of dark energy. Dark energy is not well understood but it is currently causing the accelerating expansion of the universe. Fundamental theories of physics point to potential dark matter candidates, but dark energy remains an enigma. Clues to the fundamental nature of matter and energy are likely to come from study of the very early universe.

PRESENTATION ABSTRACT — *Thabkhe | Causal Factors for the Origins of the Universe*

In Buddhism a creator being is not accepted as the point of origin of the universe. Instead, it postulates two principal causal factors that brought forth our universe: a material cause consisting of various particles, and a conditional factor in the form of collective karma that initiates the process of formation. Our universe is but one of countless number of universes that dotted the sphere of existence. The particles that act as the material cause are formed by what are called the four “source particles” and the space and void particles. In this presentation we will talk about the concept of dependent origination and causality in light of the origin and the formation of the universe and the nature and function of the four “source particles” and how they interact with each other to constitute the physical world.

11:30am - 1:00pm

Lunch Break

1:00 - 3:00pm

SESSION 4 — BIOLOGY: *What is life and what are its origins (developmentally as well as evolutionarily)?*

WITH His Holiness the Dalai Lama **PRESENTERS** Scott Gilbert, Ngawang Norbu **PANELISTS** Joel Zivot, Jampa Khechok **MODERATED BY** Arri Eisen

SESSION
4

PRESENTATION ABSTRACT — *Scott Gilbert | Developmental Biology As a Science of Dependent Co-Origination* Developmental biology is the science that studies how the different organs—the heart and brain, for instance – are generated from one original cell, the zygote (the fertilized egg). Organs come into being through dependent co-origination, whereby immature cells interact to mature the neighboring cells to become a functioning part of a greater whole. This talk will discuss dependent co-origination at the levels of fertilization, eye development, and intestinal blood vessel formation. Fertilization occurs when two cells, the sperm and the egg, meet. By their mutual interactions, the zygote is generated. Organ forma-

DAY TWO — MONDAY, DECEMBER 19 (*continued*)

tion occurs when two groups of cells meet, and each group becomes functional through its interactions with the other group. In the development of the eye, the lens and the retina help form each other. In mammals, the capillaries that bring food from the gut to the body do not form if the gut lacks bacteria, single-celled microscopic organisms that are not of the same species as the mammal. The interactions between these two sets of cells from two different kinds of life enables the mammalian cells surrounding the gut to become blood vessels. Co-dependent origination is seen throughout the development of the body.

PRESENTATION ABSTRACT — *Ngawang Norbu | Buddhist Perspectives on the Origination of Life on Earth* Buddhism places so much emphasis on the development not of physical body per se but of inner life. Physical body is transitory and once the connection between the body and the mind ends—at the time of death, the body ceases to have any influence on one's welfare. But the influence of the inner mental life continues and it is the mind that takes the journey forward and that needs to be developed in order to have a better future. With such a worldview, it is hardly surprising that there is very little about the physical aspects of life in Buddhist literature. Yet, understanding of life and how it functions, and what makes something living, is important, especially in connection with its ethical values and moral practices. This paper presents Buddhist concept of life, the essential features of life, and various forms of life. The paper also talks about the various developmental stages of human embryo based on *Entry to the Womb Sutra*. Biology offers great insights into these matters that could be highly beneficial to monastic students in deepening their understanding of life.

3:30 - 4:30pm

Q&A with presenters and panelists

4:30 - 6:00pm

Monastic Science Demonstrations

Drepung Loseling Meditation and Science Center

7:00 - 8:30pm

Translating Science into Tibetan

Drepung Loseling Debate Courtyard

PANELISTS Geshe Lhakdor, LTWA; Tsondue Samphel, Emory University; Karma Thupten, LTWA

DAY THREE — TUESDAY, DECEMBER 20

9:00 - 11:30am

SESSION 5 — NEUROSCIENCE: **What is mind, and its relationship to the body, brain and subjective experience?**

WITH His Holiness the Dalai Lama PRESENTERS Christof Koch,

Lodoe Sangpo PANELISTS Brian Dias, Gelek Gyaltzen

MODERATED BY Carol Worthman

SESSION

5

PRESENTATION ABSTRACT — *Christof Koch | Science and the Mind-Body Problem*

What is the nature of mind? How can something as material as the human body generate something as diaphanous as the subjective experience of a blue sky, a sharp tooth ache or the memory of mother's face? How can mind cause things to occur in the world, such as moving an arm? What happens to mind when the body falls asleep or when it dies? Can mind survive death of the body? Who else has mind? Babies? Old people whose mind is ravaged by dementia? Do animals such as apes and dogs have mind? What about bees or other insects? Collectively, these questions are known as the mind-body problem. This presentation focuses on what biology and neuroscience have learned about the mind-body problem, in particular about the organ of the mind, the central nervous system or brain. By quantifying conscious experience using behavioral techniques from perceptual psychology and by studying which parts of the brain generate this experience, we understand in considerable detail the relationship between the architecture of the neocortex and conscious experience. Finally, formal theories have arisen that explain which types of physical systems are capable of having conscious experience and why.

PRESENTATION ABSTRACT — *Lodoe Sangpo | Buddhist Science of Consciousness*

What is consciousness? How should we understand it? Is it a physical thing or a non-physical entity? What is the relationship between consciousness and body? Why is the study of mind so important in Buddhism? This presentation addresses these questions from Buddhist perspective. We start by defining consciousness and identifying the essential features of a conscious mind. Unlike neuroscience's understanding of consciousness as an emerging property of certain physical substrates, Buddhism views consciousness as an immaterial, purely subjective entity that has an innate quality to cognize its objects. This basic concept underlies the Buddhist view that every sentient being has the potential to become fully enlightened. It also highlights the reason why Buddhists have focused so much on studying our mind.

11:30am - 1:00pm

Lunch Break

DAY THREE — TUESDAY, DECEMBER 20 (*continued*)

1:00 - 3:00pm

SESSION 6 **Secular Ethics in Education: Why does education need an ethical component?**

SESSION

6

WITH His Holiness the Dalai Lama **PRESENTERS** Kimberly Schonert-Reichl, Lobsang Tenzin Negi **PANELISTS** Geshe Ngawang Samten, Timothy Harrison **MODERATED BY** Geshe Lhakdor

PRESENTATION ABSTRACT — *Kimberly Schonert-Reichl | Educating the Heart: Recent Science on Social and Emotional Learning and Ethical Education*

Understanding the factors that children and youth need to be successful in school and in life has long been an important objective for researchers, parents, educators, policymakers, and the public at large interested in the promotion of competence and in the prevention of educational and psychological problems. There is a growing consensus among psychologists, educators, and educational scholars that a more comprehensive vision of education is needed—one that includes an explicit focus on “educating the heart” and one that fosters a wider range of children’s knowledge, attitudes, values, and skills such as self-regulation, self-awareness, empathy, compassion, altruism, and ethical decision-making. Indeed, in the face of current societal, economic, environmental, and social challenges, the promotion of children’s empathy, compassion, altruism, and ethical competence in education is seen as more critical than ever before. In order for children to achieve their full potential as productive adult citizens in a pluralistic society and as employees, parents, and volunteers, there must be explicit and intentional attention given to promoting social and emotional and ethical education in schools. This paper focuses on one approach for enhancing children’s success in school and in life through educational practices designed to promote students’ social and emotional learning (SEL) and ethical education. It begins by providing a rationale, definitions, and description of the various dimensions that compose social and emotional learning. Next, a review of groundbreaking scientific findings that offer strong empirical support for an SEL approach to promoting positive human qualities in children is provided. The paper ends by offering some conclusions on how an understanding of SEL has implications for thinking about education in schools, along with some directions for future research in this area.

PRESENTATION ABSTRACT — *Lobsang Tenzin Negi | A Framework for Social, Emotional and Ethical Development in K-12 and University Education*

This presentation will convey Emory University’s framework for the inclusion of compassion-based ethics in K-12 and university education. Grounded in His Holiness the Dalai Lama’s view that education can, and indeed should, seek to foster the values and competencies that lead to greater happiness for both individuals and society at large, this framework was developed at the request of His Holiness in order to implement his far-reaching vision for educational curricula based upon secular ethics. The intention of Emory’s program is to

enhance the 'soft skills' necessary to wellbeing for both self and others in a multicultural world, and to develop, execute, and evaluate evidence-based educational programs that promote social, emotional, and ethical development through the cultivation of self-regulatory and prosocial behaviors, critical thinking, and socially responsible decision-making.

**Followed by a summary of the conference
by Gaelle Desbordes, and His Holiness's final remarks.**

3:30 - 4:30pm

Q&A with presenters and panelists

4:30 - 6:00pm

Monastic Science Demonstrations

Drepung Loseling Meditation and Science Center

7:00 - 8:30pm

Science Research Conducted by Monastics Panel

Drepung Loseling Debate Courtyard

PANELISTS Sonam Choephel, Gelek Gyaltzen, Jampa Khechok

Monks and Nuns Graduate from ETSI Pilot Phase

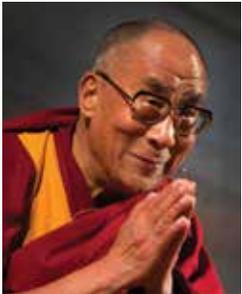


“For the first time in Tibetan history, monastic students are graduating from a modern science course—after having studied it, not for a day or two, but continuously for months and years.”

—His Holiness the Dalai Lama

PRESENTERS, PANELISTS AND MODERATORS

HIS HOLINESS THE 14TH DALAI LAMA

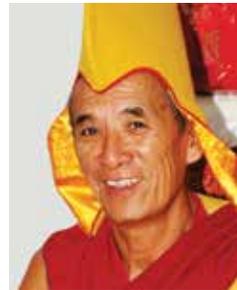


Tenzin Gyatso, the 14th Dalai Lama, is the spiritual leader of the Tibetan people and one of the most revered and enduring leaders on the global stage. Born on July 6, 1935, in a small village called Taktser in northeastern Tibet,

the Dalai Lama was recognized at the age of two, in accordance with Tibetan tradition, as the reincarnation of his predecessor, the 13th Dalai Lama. He received his formal education in Buddhist thought and the great Buddhist classics and received the *Geshe Lharam* degree, equivalent to a doctorate in divinity, following the conclusion of his final debate examinations at the great Prayer Festival in Lhasa in 1959. Winner of numerous international awards, including the Nobel Prize for Peace in 1989 and the US Congressional Gold Medal in 2007, His Holiness is universally respected for his steadfast promotion of understanding and tolerance across boundaries and a more compassionate and peaceful resolution of human conflict. He has traveled extensively, speaking on subjects including global peace, environment, universal responsibility, justice, equality, and compassion. Less well known is his intense personal interest in the sciences; he has said that if he were not a monk, he would have liked to be an engineer. As a youth in Lhasa it was he who was called on to fix broken machinery in the Potala Palace, be it a clock or a car. He has a vigorous interest in learning the newest developments in science, and brings to bear both a voice for the humanistic implications of the findings, and a high degree of intuitive methodological sophistication.

His Holiness has had a relationship with Emory University spanning almost two decades. In 1998 he presided over the formation of the Emory-Tibet Partnership, and in 2006, invited Emory to partner with the Library of Tibetan Works and Archives to create a sustainable and comprehensive science curriculum for monastics, leading to the creation of the Emory-Tibet Science Initiative. In 2007, His Holiness graciously accepted an appointment at Emory University as Presidential Distinguished Professor. In this capacity he meets with Emory faculty and students both in Dharamsala, India, and in Atlanta, Georgia, USA. Most recently, His Holiness invited Emory to spearhead the creation of evidence-based, K-12 and university level curricula in compassion-based ethics, an on-going effort.

HIS EMINENCE THE 103RD GADEN TRIPA, LOBSANG TENZIN RINPOCHE



His Eminence the 103rd Gaden Tripa, Lobsang Tenzin Rinpoche, was born in Eastern Tibet in 1937, and joined Drepung Loseling Monastery in Lhasa after completing his early education at Tsem. At Drepung Loseling, he studied

with many of the greatest masters of the 20th century before following His Holiness the Dalai Lama into exile in 1959 after the invasion of Tibet by the Chinese Communists.

Rinpoche's extraordinary talents were recognized early, and he quickly became an esteemed teacher even before he completed his *Geshe Lharam* degree in 1982. He rose through a succession of important positions, becoming the abbot of Gyuto Tantric

Monastery in 1993. Upon completion of his term, he returned to Drepung Loseling where he worked tirelessly to share his vast knowledge of the dharma. He was appointed *Sharpa Choeje* (Dharma Master of the Eastern Peak) by His Holiness the Dalai Lama in 2003, and in 2016 was enthroned as Gaden Tripa. As the 103rd throne holder, Rinpoche is the successor to the founder of the *Geluk* lineage, the great 14th century master Je Tsongkhapa—widely venerated as an emanation of Manjushri, the Buddha of Wisdom.

Over the years, Rinpoche has taught thousands of students, and has traveled extensively, giving teachings and empowerments internationally. During visits to Taiwan, Malaysia, Australia, Europe, Canada and the United States, Rinpoche has been able to provide spiritual guidance and support to many.

MICHEL BITBOL Michel Bitbol is researcher at CNRS, Paris, France. He received an M.D., a Ph.D. in physics and a “Habilitation” in philosophy. After a start in scientific research, he turned to philosophy, editing texts by Erwin Schrödinger and formulating a neo-Kantian philosophy of quantum mechanics. He then studied the relations between the philosophy of physics and the philosophy of mind, in collaboration with Francisco Varela. He drew a parallel between Buddhist dependent arising and non-supervenient relations, in quantum physics and the theory of knowledge. And he recently developed a conception of consciousness inspired from an epistemology of first-person knowledge.



ERIN WELLS BONNING Erin Wells Bonning received her Bachelor of Arts in Liberal Arts from St. John’s College in Maryland and her Ph.D. in Physics from the University of Texas at Austin. Her research interests are in astrophysics,

primarily in super-massive black holes in other galaxies - how they migrate, interact, and influence their galactic environments. Erin Wells Bonning joined the physics faculty of Emory University in 2013 and was part of the inaugural group of ETSI faculty teaching at the monasteries in southern India in 2014. She has taught the Year One overview of physics over the last three years to students at Gaden and Sera monasteries and is always astonished at the capacity of the monastic students to grapple with difficult and challenging perspectives while simultaneously challenging and expanding her own worldview.

SONAM CHOEPHEL Geshe Sonam Choephel was born in a small village in Tibet. One of seven children in a large peasant family, he received no formal education until he arrived in India. He stayed with his uncle at a small monastery where he learned to read Tibetan and then entered Drepung Loseling Monastery in 1992. He received his *geshe lharampa* degree in 2016 and is a student of the renowned Loseling master, Geshe Palden Drakpa. In 2007, Ven. Sonam Choephel began studying science through Science Meets Dharma, and he joined the first cohort of monastics studying with the Emory-Tibet Science Initiative, graduating from that program in 2012. Subsequently, he joined the Science Leadership Workshop at the Library of Tibetan Works and Archives, and also spent two years studying science at Emory University as a Tenzin Gyatso Science Scholar. Currently he serves as the science education coordinator at Drepung Loseling.



GAELE DESBORDES Gaelle Desbordes is currently an Instructor (research faculty) at the Massachusetts General Hospital (MGH)-Harvard-MIT Martinos Center for Biomedical Imaging. Her main research interest

is in the investigation of different types of meditation practices (e.g. mindful attention, compassion) from a neuroscientific perspective. She was a faculty member in neuroscience during the pilot phase of the Emory-Tibet Science Initiative and joined the Emory-Tibet Science Initiative part-time as staff scientist. In this role, she conducts assessment of the program.

Another study that she has been working on since 2009 is part of a multisite investigation of meditation and mind-body health (the Compassion and Attention Longitudinal Meditation (CALM) study), which is a collaboration between the Martinos Center, Boston University, Emory University, and the University of Arizona. The first results were published in the journal *Frontiers in Human Neuroscience* (full article) and have received press coverage in the *Boston Globe*, the Huffington Post, the *Harvard Gazette*, the *Epoch Times*, the *Philippine Star*, the French magazine *Science&Vie*, and others, and were featured as an NIH Research Spotlight.

YUNGDRUNG KUNCHOK Geshe Yungdrung Konchok (Kunjo Baiji) was born in 1982 in western Nepal. In December 1987, he left home and traveled to India. Soon after his arrival, he joined the Central School for Tibetans Dholanji in Himachal Pradesh. After completing the 8th grade in 1996, he entered the Menri Bon Monastery. He completed his *geshe* examinations in 2014 after seventeen years of study,

In 2002, Geshe Yungdrung Konchok attended his first science workshop offered by the Science for Monks program. Since that time, he has attended many different science programs for monastics, and graduated from the five year Emory-Tibet Science Initiative pilot program in Dharamsala, India. He was one of the first six monks to study at Emory University as part of the Tenzin Gyatso Science Scholars program.

He has co-written a forthcoming book with Dr. Arri Eisen, to be published by the University of New England Press. Since completing his *geshe* ex-

ams, he has taught science at Menri Bon Monastery and is also the first monastic science scholar selected for a six-month long internship with the Library of Tibetan Works and Archives science section.

BRIAN DIAS Brian Dias grew up in India and obtained an MSc from the Tata Institute of Fundamental Research (TIFR) studying the neurobiology underlying antidepressant treatments and stress in rats. Wanting to conduct field-work and be “outside”, he pursued a PhD



at UT-Austin studying sexual behavior in lizards. Motivated by his desire to query the genetic basis of behavior he then transitioned to working on courtship behavior in the fruitfly at HHMI-Janelia Farm Research Campus, before moving to Emory to study the neurobiological mechanisms underlying fear in the mouse. His work has been covered extensively by scientific (*Nature News and Views* and *Nature*) and popular media (e.g. National Geographic, BBC, listed as one of the Top 10 Scientific Discoveries of 2014 by La Recherche). His lab works on understanding the development of Post Traumatic Stress within and across generations.

JOHN DURANT John Durant received his BA in Natural Sciences from Queens’ College, Cambridge in 1972 and went on to take a PhD in History and Philosophy of Science, also at Cambridge, in 1977. After more than a decade in University Continuing Education (first, at the University of Swansea in Wales, and then at the University of Oxford), in 1989 he was appointed Assistant Director and Head of Science Communication at the Science Museum, London and Professor of Public Understanding of Science at Imperial College, London. In 2000, he was appointed Chief Executive of At-Bristol, a new independent science centre in the West of England. He came to MIT in July 2005, to take up a joint appointment



as an Adjunct Professor in the STS Program and Director of the MIT Museum. Here, he leads the development of the MIT Museum as a place where the wider community can engage with research and innovation, past and present. In 2007, he led the creation of the Cambridge Science Festival, the first citywide festival of science and technology in the U.S. In 2008, he was a founder Fellow of the Noyce Foundation Science Center Leadership Initiative.

His earlier research was in the history of evolutionary and behavioral biology, with special reference to debates about animal nature and human nature in the late-19th and 20th centuries. More recently, however, he has undertaken sociological research on the public dimensions of science and technology.

Dr. Durant is currently The Mark R. Epstein (Class of 1963) Director of the MIT Museum, and an Adjunct Professor in the STS Program at MIT.

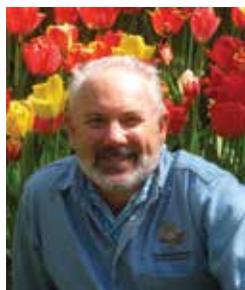
ARRI EISEN Arri Eisen received his BS in



biology with honors from UNC-Chapel Hill and his PhD in biochemistry from the UW-Seattle. His scholarship during his 26 years at Emory has engaged basic science, science and religion, science education,

and bioethics; and he teaches undergraduates, graduate students, post-docs, and professionals across disciplines. Dr. Eisen is one of the founders of the Emory Tibet Science Initiative and is the leader of the ETSI Life Sciences group.

SCOTT GILBERT Scott F. Gilbert is Professor



Emeritus of biology at Swarthmore College and the University of Helsinki (Finland). He is the author and co-author of several books, including *Bioethics and the New Embryology: Springboard for Debate*; *Developmental*

Biology (now in its tenth edition), and *Ecological Developmental Biology*. He received his MA in the

history of science and his PhD in biology from the Johns Hopkins University. Scott's research concerns how changes in embryonic development can generate new types of anatomical structures (such as turtle shells) and how symbiotic microbes become critical for the production of organs during normal development.

LOBSANG GONPO Ven. Lobsang Gonpo, aka



Bat-Itgel Tsedendamba, was born in Mongolia to a devout Buddhist family, and both of his parents were practitioners of Tibetan medicine. When he was eight years old, they moved to an ethnic Buddhist region in Siberia, and at a

small monastery there, he began to learn the Tibetan language and study Buddhist texts. His teachers encouraged him to study Buddhist philosophy, and in 1995 he joined with other monks wishing to pursue their advanced Buddhist studies at Drepung Gomang in south India. His parents were very supportive, especially given the negative effect that the Communist era had on Buddhism in Mongolia.

Currently, he is in his fourth year of *Geluk* exams, and his primary teachers include Khensur Rinpoche Lobsang Tenpa, and Geshe Lobsang Palden of Drepung Gomang. Ven. Lobsang Gonpo joined the Emory-Tibet Science Initiative in 2009, previously attending classes offered by Science Meets Dharma. Since 2011, he has also participated in workshops offered by Science for Monks.

GELEK GYALTSEN Ven. Gelek Gyaltzen was born



in Tibet to a farming family. As a young boy he loved tending animals, and also attended a Chinese school for two years. At age fourteen, he entered a local monastery learning to perform rituals and to memorize prayers

before beginning his studies at Drepung Loseling Monastery in 1993. Ven. Gelek Gyaltzen has studied primarily under Geshe Palden Drakpa, regarded

as one of the greatest living masters of Tibetan Buddhist philosophy. He is currently in the second year of the six-year long *Geluk* exams leading to the *geshe lharampa* degree.

Ven. Gelek Gyaltzen's science training began with science classes offered by Science Meets Dharma, which he attended over a five year period. He also participated in the science workshops offered by Science for Monks, and in 2008 was selected to join the first cohort of monastics participating in the pilot phase of the Emory-Tibet Science Initiative. He participated in these summer intensives for a period of six years, and was then selected to do intensive studies at Emory University over a period of three years as one of the first six Tenzin Gyatso Science Scholars.



JULIA HAAS Julia Haas is an Assistant Professor of Philosophy at Rhodes College. Her research is in the philosophy of cognitive neuroscience, specializing in theories of decision-making.

Before coming to Rhodes, she was a McDonnell Postdoctoral Fellow in the Philosophy-Neuroscience-Psychology program at Washington University in St. Louis. She received her PhD in Philosophy at Emory University.



TIMOTHY HARRISON Timothy Harrison is an Assistant Director at the Emory-Tibet Partnership, where he coordinates two of its education programs. The newest is SEEd (Social Emotional and Ethical Development), an educational framework for teaching compassion-based ethics beginning in kindergarten and continuing through high school, and the other is CBCT® (Cognitively-Based Compassion Training), a contemplative method for cultivating compassion in a secular context, based on lo jong techniques.

Presently, Tim supervises the CBCT instructor certification program, developed to assure fidelity

of teaching, and coordinates the implementation of CBCT for scientific studies. With the SEEd program, he is working with teachers and educational consultants to create developmentally appropriate curricula as well as teacher training materials. Tim teaches CBCT regularly at the Emory Schools of Medicine and Law, Emory College, Spiritual Health at Emory Healthcare, and in the Atlanta Public Schools. Tim holds a masters degree from Harvard University and practiced and taught architecture for 20 years before joining Emory in 2013.



CHRISTOPHER IMPEY

Chris Impey is a University Distinguished Professor of Astronomy and Associate Dean of the College of Science at the University of Arizona. He has over 180 refereed publications on

observational cosmology, galaxies, and quasars, and his research has been supported by \$20 million in NASA and NSF grants. He has won eleven teaching awards, and has taught two online classes with over 70,000 enrolled. Dr. Impey is a past Vice President of the American Astronomical Society and he has been an NSF Distinguished Teaching Scholar, the Carnegie Council's Arizona Professor of the Year, and most recently a Howard Hughes Medical Institute Professor. He's written over 40 popular articles on cosmology and astrobiology, two introductory textbooks, a novel called *Shadow World*, and seven popular science books: *The Living Cosmos*, *How It Ends*, *Talking About Life, How It Began*, *Dreams of Other Worlds*, *Humble Before the Void*, and *Beyond: The Future of Space Travel*.



JAMPA KHECHOK

Ven. Jampa Khechok grew up in the village of Phyang near Leh, Ladakh in Tibetan border region of the Indian Himalayas. The youngest of five children in a farming family, he joined Phyang Monastery at the age of eight with his parents' consent.

In 1986, his eldest brother, a teacher at the Central Institute of Buddhist Studies in Leh, helped him to enter Sera Je Monastery in order to have both a spiritual and modern education. He graduated from the 10th class of the Sera Je Secondary School, before formally joining dialectical debate class at the monastery. Along with his Buddhist studies, Ven. Jampa Khechok had the opportunity to attend Science Meets Dharma classes over a period of five years, and to attend a Science Leadership Program for Buddhist monastics. Simultaneously, he participated in the Emory-Tibet Science Initiative summer intensives for five years, working on learning science terminology in both Tibetan and English. Subsequently he was selected to join the Tenzin Gyatso Science Scholars for a two year residency at Emory.

CHRISTOF KOCH Born in the American Midwest,



Christof Koch grew up in Holland, Germany, Canada, and Morocco. He studied Physics and Philosophy at the University of Tübingen in Germany and was awarded his Ph.D. in Biophysics. Following four years at MIT, Christof joined the California Institute of Technology as a Professor in Biology and Engineering. After a quarter of a century, Christof left academia for the non-for-profit Allen Institute for Brain Science in Seattle where he is now President and Chief Scientific Officer, leading a ten year, large-scale, high through-put effort to build brain observatories to map, analyze and understand the mouse and human cerebral cortex.

Christof has authored more than 300 scientific papers and articles, eight patents and five books concerned with the way computers and neurons process information and the neuronal and computational basis of visual recognition and perception and attention. Together with his long-time collaborator, Francis Crick, Christof pioneered the scientific study of consciousness. His latest book is *Consciousness: Confessions of a Romantic Reductionist*. He is a frequent public speaker and writes a regular column for *Scientific American Mind*.

GESHE LHAKDOR Geshe Lhakdor is the Director of the Library of Tibetan Works and Archives in Dharamsala, India, perhaps the most important Tibetan institution in exile dedicated to the preservation and dissemination of Tibetan culture. He holds a bachelor's degree and a master's degree in English from Panjab University, Chandigarh. From 1976 - 1986 he studied Buddhist philosophy at the Institute of Buddhist Dialectics, a private institute for advanced studies established by His Holiness the Dalai Lama in Dharamsala, India. He received his Master of Prajnaparamita (Perfection of Wisdom) in 1986 and in 1989 his Master of Madhyamika (Middle Way Philosophy) with distinction in both. In 1989 he also received his Master of Philosophy (MPhil) from the University of Delhi. In 1995 he received his Geshe Degree (Doctor of Divinity), the highest degree of learning in Tibetan Buddhism, from the Drepung Loseling Monastic University in South India.



From 1989-2005 he served as His Holiness the Dalai Lama's religious assistant and English translator, accompanying His Holiness to more than thirty countries before becoming director of the Library of Tibetan Works and Archives at His Holiness' request. Geshe Lhakdor has translated, co-translated and co-produced several books by His Holiness, including *The Way to Freedom*, *The Joy of Living and Dying in Peace*, *Awakening the Mind and Lightening the Heart*, and *Stages of Meditation*, among others. Geshe Lhakdor is a trustee of the Foundation for Universal Responsibility, established by His Holiness, Director of the Central Archive of His Holiness, a member of the Advisory Board of the Institute of Tibetan Classics in Montreal, Canada, and Honorary Professor at the University of British Columbia, Canada.

LOBSANG TENZIN NEGI Lobsang Tenzin Negi, Ph.D. is a Professor of Practice in Emory University's Department of Religion and the founder and spiritual director of Drepung Loseling Monastery,



Inc., in Atlanta, GA. He is also the co-founder and director of the Emory-Tibet Partnership, a unique multi-dimensional initiative founded at Emory University in 1998. As director, he also oversees the Emory-Tibet Science Initiative (ETSI). Additionally, he developed Cognitively-Based Compassion Training (CBCT), a compassion meditation program based on Tibetan contemplative methods and taught as both a research protocol and to the public for personal enrichment.

Dr. Negi was born in Kinnaur, a remote Himalayan region adjoining Tibet. A former monk, he began his monastic training at The Institute of Buddhist Dialectics in Dharamasala, India and continued his education at Drepung Loseling Monastery in south India, where in 1994 he received his *Geshe Lharampa* degree. He completed his Ph.D. at Emory University in 1999; his interdisciplinary dissertation centered on traditional Buddhist and contemporary Western approaches to emotions and their impact on wellness.

NGAWANG NORBU Geshe Ngawang Norbu was born in the Tibetan Refugee Settlement at Lugsum Samdrupling in Bylakuppe, south India. One of seven children in a farming family, he spent three years in a boarding school mainly for the children of Tibetans serving in the



Indian Army. In 1985 he joined Sera Je Monastery where he completed his *geshe* degree in 2014 under the guidance of his beloved teachers, the late Geshe Sherab Thabkhe, and the late Khensur Rinpoche Lobsang Tsering.

He began his science education in 2003 with Science Meets Dharma, and in 2004 attended his first workshop organized by Science for Monks. He participated in all of the Science for Monks workshops until 2008 when he was selected to join the first cohort of monks studying in the Emory-Tibet Sci-

ence Initiative. After completing six years of study with ETSI, he studied science at Emory University for three years as part of the Tenzin Gyatso Science Scholars program, and he now serves as the science education coordinator at Sera Je Monastery.

ROBERT PAUL Robert A. Paul is the Charles



Howard Candler Professor of Anthropology and Interdisciplinary Studies and an associate professor in the Department of Psychiatry and Behavioral Sciences at Emory University. His research interests include

psychological anthropology, comparative religion, myth and ritual, and the ethnography of Nepal, Tibet, the Himalayas, and South and Central Asia.

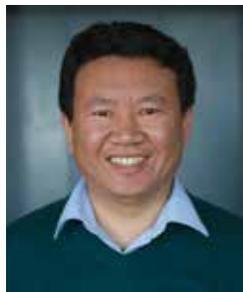
Dr. Paul received his B.A. from Harvard College and his M.A. and PhD from the University of Chicago. He came to Emory University in 1977 as associate professor in the Graduate Institute of Liberal Arts. He helped establish Emory's Anthropology Department and served as its first acting chair. In 1987, Dr. Paul began clinical training at the Emory University Psychoanalytic Institute, located in Emory's School of Medicine. He graduated in 1992 and was certified by the Board on Professional Standards of the American Psychoanalytic Association in 1997 after which he established Emory's widely recognized Psychoanalytic Studies Program. From 2001-2010, he served as dean of Emory College. When Dr. Paul completed his tenure as dean, the Emory-Tibet Science Initiative, which he co-founded, was designated the Robert A. Paul Emory-Tibet Science Initiative in his honor.

MARK RISJORD Mark Risjord is a Professor of Philosophy at Emory University. He directs the Institute for the Liberal Arts, and the Laney Graduate School's Grant Writing Program. He received his PhD in 1990 from the University of Carolina at Chapel Hill, and has



been at Emory since 1993. Dr. Risjord's research focuses on philosophy of science, particularly the social and biomedical sciences. In his work, Dr. Risjord has explored the character of scientific explanation, the role of moral values in scientific research, and the relationship between scientific theory and clinical practice. His books include *A Contemporary Introduction to the Philosophy of Social Science* (Routledge, 2014). Dr. Risjord has been part of the Emory Tibet Science Initiative since its inception. He has developed a philosophy of science curriculum for ETSI that aims to provide students with the tools they need to critically understand contemporary science and to explore the consequences of contemporary science for Buddhist thought.

TSONDUE SAMPHEL Tsondue Samphel received his B.S. in physics from Emory College in 2006. Prior to that, from 1992-2000, he studied at the Institute of Buddhist Dialectics, India where he obtained his M.A. and B.A. equivalents in Buddhist studies. While studying

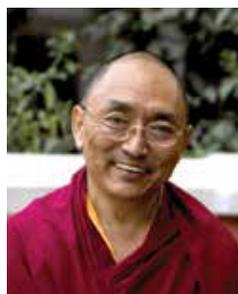


at the Institute, Tsondue started contributing translations of articles on science and western philosophy for the Institute's literary journal called Lhagsam Tzepga. Later, he served as its editor for six years and brought out two books and several journals. He also taught language classes at the Institute.

In 2006, when the Emory-Tibet Science Initiative (ETSI) is in its initial stage of inception, Tsondue joined ETSI as a translator-cum-research assistant. He has ever since been working for the ETSI and its science education project.

He has translated, reviewed and edited two books—*Brain Facts* and *Philosophy of Science*—and numerous scientific articles into Tibetan. Tsondue is also involved in an ongoing effort to create and build up scientific lexicon in Tibetan. Working closely with his colleagues at Emory and the Library of Tibetan Works and Archives, he has been organizing an annual conference, for the past five years, to coin and standardize scientific vocabulary in Tibetan.

NGAWANG SAMTEN The Ven. Professor Geshe Ngawang Samten is the Vice Chancellor of the Central Institute of Higher Tibetan Studies in Sarnath, Varanasi. Prior to assuming the Vice Chancellorship, he was Director of the Research and Publications Division of the



Institute. Prof. Geshe Samten earned his *Shastri* and *Acharya* degrees in Buddhist philosophy, as well as a PhD from the Central Institute of Higher Tibetan Studies and his *Geshe* degree from Ganden Shartse Monastic University. A multilingual scholar who works in Tibetan Sanskrit, English and Hindi, he is editor of the Tibetan critical edition of Nagarjuna's *Ratnavali*, and is co-translator with Prof. Jay Garfield of *Tsong Khapa's Ocean of Reasoning: A Great Commentary on Nagarjuna's Mulamadhyamakakarika* in addition to numerous scholarly articles and anthology contributions. He is also intimately involved in implementing His Holiness the Dalai Lama's vision for secular ethics in education in Indian academic institutions. Prof. Geshe Samten has addressed conferences and colloquia around the world, and has held visiting professorships at the University of Tasmania in Australia and at Hampshire College, Amherst College and Smith College in the United States. Professor Samten was decorated with the Padma Shri Award by the President of India for his distinguished service in the fields of Education and Literature.

LODOE SANGPO Ven. Lodoe Sangpo spent his early years in the Kham region of Tibet. Coming from a very simple family, he had little educational opportunity and thus left Tibet to enter Gaden Jangtse monastery in 1992. He is currently in process of taking his *Geluk* exams for



the *geshe lharampa* degree and has two more years of exams to complete. In 2006, Ven. Lodro Sangpo began studying science with the Science Meets Dharma program. Additionally, he was able to

attend five workshops offered by Science for Monks at the Library of Tibetan Works and Archives as part of their Science Leadership Institute. In 2008 he began participating in the Emory-Tibet Science Initiative, completing five years of summer intensives before taking up a three-year long residency at Emory University as a Tenzin Gyatso Science Scholar. Currently Ven. Lodro Sangpo serves as the science coordinator at Gaden Jangtse Monastery.

KIMBERLY SCHONERT-REICHL Dr. Kimberly Schonert-Reichl is an Applied Developmental Psychologist and a Professor in the Human Development, Learning, and Culture area in the Department of Educational and Counselling Psychology, and Special



Education at the University of British Columbia (UBC). She is also the Director of the Human Early Learning Partnership in the School of Population and Public Health in the Faculty of Medicine at UBC. Dr. Schonert-Reichl began her career as a middle school teacher and then was a teacher for “at risk” adolescents in an alternative high school. She received her M.A. from the University of Chicago and her Ph.D. from the University of Iowa.

Dr. Schonert-Reichl is a renowned expert in the area of social and emotional learning (SEL) research with children and adolescents, particularly in relation to the identification of the processes and mechanisms that foster positive human qualities such as empathy, compassion, altruism, and resiliency. For more than two decades, Dr. Schonert-Reichl’s research has focused on the social and emotional development of children and adolescents in school and community settings. Her current projects include studies examining the effectiveness of classroom-based universal social and emotional learning (SEL) programs.

Dr. Schonert-Reichl has received numerous awards and honors for her work. She is a Fellow of the Mind and Life Institute and a Fellow of the Botin Foundation’s Platform for Innovation in Education.

THABKHE Ven. Thabkhe came to Sera Je Monastery from Penpo in central Tibet. His family were farmers without formal education, and he attended a Chinese primary school before becoming a monk at a very young age. In 1992, Thabkhe was able to leave Tibet and enter



Sera Je Monastery in Bylakuppe, south India. An avid student of Buddhist philosophy, Thabkhe also completed a number of science education programs. Beginning in 2004 he attended classes offered by Science Meets Dharma and also participated in the Science Leadership Institute hosted by the Library of Tibetan Works and Archives a total of five times. He was chosen to participate in the Emory-Tibet Science Initiative pilot phase, and completed five years of summer intensives. In 2012, Thabkhe arrived at Emory University where he studied science for three years as a member of the first cohort of Tenzin Gyatso Science Scholars, focusing on work in physics.

THUPTEN TSERING Ven. Thupten Tsering joined Drepung Loseling Monastery in 1992 at the age of fourteen. Born in the Himalayan region of Nepal, he attended primary school through the fifth grade there. He received his full ordination vows from His Holiness the Dalai Lama,



and after completing his Madhaymika studies, had the opportunity to begin studying science through Science Meets Dharma and through various workshops organized by the Library of Tibetan Works and Archives. In 2014, he was selected as a member of the second cohort of Tenzin Gyatso Science Scholars, and spent two years at Emory University intensively studying science as well as improving his English. He has recently completed his third year of *Geluk* exams, working to receive his *geshe lharampa* degree in Buddhist philosophy.

SONAM WANGCHUK Sonam Wangchuk arrived in India in 1993 and for more than 18 years has studied Buddhist philosophy at Sera Je Monastery including Madyiamaka, Vedanta and Samkaya philosophy beginning in 2010. From 2001 until 2011, he also studied physics, biology, and cosmology. In 2013 he authored a book of more than 700 pages, entitled *Meditation of Madiyamika and Science*, which brought his work to the attention of His Holiness the Dalai Lama, who has requested that he write another book focusing mainly on different traditional tantras.



CAROL WORTHMAN Carol Worthman holds the Samuel Candler Dobbs Chair in Anthropology, Emory University, and directs the Laboratory for Comparative Human Biology. She took her PhD in biological anthropology at Harvard University, having also studied endocrinology at UCSD and neuroscience at MIT. Professor Worthman deploys a biocultural approach in comparative interdisciplinary research on human



development and pathways to differential mental and physical health. She has conducted cross-cultural biosocial research in thirteen countries, as well as in rural, urban, and semi-urban areas of the United States. Since 2007, she also leads the neuroscience component of the Emory-Tibet Science Initiative.

JOEL ZIVOT Joel B Zivot, MD, FRCP(C) is Associate Professor of Anesthesiology and Surgery in the Emory University School of Medicine and Adjunct Professor of Law in the Emory School of Law. Dr. Zivot taught biology at Drepung Monastery in India in June 2015. Dr. Zivot has written and taught nationally and internationally on a broad range of subjects related to physiology, pharmacology, critical illness, law, medicine and the field of bioethics.



Dr. Zivot has a strong interest in ethical questions about definitions of life and personhood including questions at the end of life. Dr. Zivot contends that Buddhism and traditional biological pedagogy are naturally blended around questions concerning the line between alive and not alive; between sentient and not sentient.

THE FIRST EMORY-TIBET SYMPOSIUM BRIDGING BUDDHISM AND SCIENCE



Year	Philosophy of Science	Physics	Biology	Neuroscience
1	Introduction	Introduction	Introduction	Introduction
2		Mechanics	Evolution	Perception
3		Properties of Matter, Heat and Sound	Genes and Cells	Neurons: Transmission, Integration, and Response
4		Electricity and Magnetism	Physiology and Development	Emotion and Memory
5		Light and Atomic Physics	Disease, Immunology, and Epidemiology	How our Bodies and Brains Adapt to a Dynamic World
6		Cosmology	The Living Staircase	Cognitive Neuroscience



Total number of ETSI students at three teaching sites for 2017

Monastery	Total No. of Students
Drepung	395
Gaden	221
Sera	449
Total	1065

ORGANIZERS

THE DALAI LAMA TRUST

THE Dalai Lama Trust, India was founded in 2003 by His Holiness the XIVth Dalai Lama. The Trust was established to support the advancement and welfare of the people in general and Tibetans in particular, by funding and providing financial support through grants and donations, for the activities of individuals and institutions belonging to, associated with and working for the welfare of the Tibetan community; the study,



preservation and promotion of the culture and heritage of the ancient civilization of Tibet in its many facets.

Among numerous charitable activities, the Dalai Lama Trust supports the people oriented activities and projects including, to encourage and cultivate Ahimsa and non-violence for individual growth and broader social change; to foster dialogue between science and religion; to provide aid for the propagation and advancement of education and learning; to provide medical relief or aid to the poor, destitute and homeless; to encourage a sense of Universal Responsibility in the young through educational system; to support or contribute towards the eradication of poverty and suffering wherever and in whatsoever form it may exist; to work towards the preservation of environment and promotion of world peace and understanding; to open, maintain and run hospitals, dispensaries, clinics and houses for the poor and residence for staff. The trust also provides scholarships, stipends and grants to deserving students.

The Dalai Lama Trust is a registered charitable body. Its income is derived mainly from the royalties from sales of His Holiness the Dalai Lama's books; monetary offerings made to His Holiness by devout members of the public; or just straightforward voluntary offerings. It is governed by a board of trustees, chaired by its founder.

EMORY UNIVERSITY

EMORY College was founded in 1836 in the small town of Oxford, Georgia, and moved to its present location in the heart of Atlanta in 1915. Since that time, Emory has grown into one of North America's most prestigious universities with nearly 15,000 students and more than 13,000 faculty and staff in four undergraduate colleges, and seven graduate and professional schools including medicine, law, business, nursing, public health, theology and the arts and sciences.

Continuously striving to meet the challenges and opportunities that come with rapid globalization, Emory recognizes that, "In a world of increasing interdependence and diminishing borders, global engagement is no longer a peripheral concern but a necessity." This is a necessity that Emory embraces with commitment and compassion, driven by the goal of building a better future for all.

A deep tradition of academic innovation thrives at Emory — from interdisciplinary scholarship and courses that spring from topics as current as today's headlines to world-class research and medical breakthroughs. Blending a formula of acclaimed faculty, service-based learning opportunities, and academic rigor with current affairs and fresh ideas, Emory is a vibrant incubator for new knowledge, nurturing intellectual insights, scientific discoveries, and experiential learning that impact lives every day.

This formula attracts award-winning students, acclaimed faculty experts, and leading researchers who bring their academic passions — and curiosity — into an intellectual arena rich with possibilities. Throughout Emory's history, the university has held fast to demonstrating common cause in situations where we are needed most. In this way, faculty, staff, and students make good on Emory's almost-limitless capacity for social transformation.



EMORY
UNIVERSITY

Community, for Emory, is a system of deep roots that radiate outward. In innumerable ways, across every facet of the University's expertise, we grow partnerships beyond our gates, using knowledge to solve real-world problems.

DREPUNG MONASTERY

DREPUNG, the Tibetan translation for 'Dharanikota,' is named for a historically important Buddhist site near what is now Amravati in western India. Literally meaning 'a pile of rice' (as Dharanikota was located in a rice growing valley), Dharanikota is the place where the Buddha is said to have revealed the Kalachakra tantra, a focal teaching within Tibetan Buddhism centered around the concept of cyclical time.

Drepung Monastery in Tibet was founded by Jamyang Choeje Tashi Palden (1379-1449), a teacher distinguished by his prodigious memory and insightful scholarship, and recognized as a paragon of humility and generosity. He is also considered one of the four principal disciples of the great scholar and adept, Je Tsongkhapa (1357-1419), the spiritual father of the Geluk School of Tibetan Buddhism.

Je Tsongkhapa was a profound thinker and prolific writer—as well as a highly realized practitioner—who received teachings and initiations from masters of all the existing major Tibetan Buddhist lineages, and who also spent extended periods of time in retreat. He emphasized the necessity of keeping the rules of monastic discipline purely and his contributions include demonstrating how to unify the teachings of both sutra and tantra, as well as his nuanced articulation of the nature of reality that explicitly aligned his position with those of the great Nalanda masters: Nagarjuna, Asanga, Buddhapalita, Chandrakirti and Shantideva. This is the legacy he bequeathed to his disciples, including Drepung's founder, Jamyang Choeje.

Je Tsongkhapa is said to have encouraged Jamyang Choeje to establish Drepung by saying,



"If you build a monastery it will be grander than this mother monastery [of mine, which is Gaden]." The master then offered his trusted disciple a conch shell unearthed from Gokpari Hill, the place where Je Tsongkhapa's own monastery, Gaden, was built. More than a mere symbol of Je Tsongkhapa's approval of Jamyang Choeje's intention to establish a new monastery, the gift of the conch fulfilled a prophecy.

According to the Lankavatara Sutra, the Buddha entrusted the conch to his close disciple, Maudgalyayana. The Buddha instructed Maudgalyayana to:

"Conceal this as a treasure in Gokpari Hill [in Tibet]. In the future, the bhikshu, 'Lotus Scented,' will discover this conch and it will become the conch for assembling the monks."

The passing of the conch from Lotus Scented—Je Tsongkhapa—to Jamyang Choeje thus directly connected the establishment of Drepung Monastic University to Buddha Shakyamuni and the origins of Buddhism in India.

Jamyang Choeje began by constructing a simple dwelling near a cave on Gepel Mountain outside of Lhasa, then after two years of teaching from the caves, construction of the new monastery began in earnest in 1416 with the patronage of Namkha Zangpo [aka Namkha Pel] and in 1419, not long before his death at age sixty-two, Je Tsongkhapa consecrated the two main temples at Drepung as well as important statues. For the next thirty years, Jamyang Choeje led the monastery as it expanded and flourished, becoming a major scholastic institution in the tradition of Je Tsongkhapa.

With the continuing growth of Drepung, Jamyang Choeje appointed seven of his main disciples to teaching positions, thus leading to the development of Drepung's colleges. Similar to the way in which separate colleges were organized under the umbrella of early western universities like Oxford, Cambridge, and Paris, Drepung was sub-divided into seven, separate entities, including the three surviving colleges now found in south India.

Drepung has long had a special relationship with the Dalai Lamas, beginning in 1517 when the Second Dalai Lama accepted Drepung's request

to become the Drepung Tripa, the throne holder overseeing all of Drepung's colleges. He soon established the Gaden Podrang—the Dalai Lama's official residence in Lhasa—within Drepung Monastery.

Panchen Sonam Drakpa of Drepung Loseling, the closest student of the Second Dalai Lama and then abbot of Drepung, was chosen to preside over the enthronement of the Third Dalai Lama Sonam Gyatso (1543–1588) in 1546, giving the new Dalai Lama his name, and serving as the preceptor who bestowed *upasaka* vows to the young lama. The two resided together in the Gaden Podrang at Drepung while the Third Dalai Lama underwent intensive training and education in all aspects of sutra and tantra. Like his predecessor the Second Dalai Lama, he too became the throne holder of Drepung, and took his full ordination at the monastery at the age of twenty-two.

Likewise the Fourth Dalai Lama, Yonten Gyatso (1589-1617) resided in the Gaden Podrang at Drepung whenever he was in Lhasa and received extensive training at the monastery as did the Fifth Dalai Lama, Ngawang Lobsang Gyatso (1617-1682). Both also held the title of Drepung Throne Holder.

It wasn't until 1645—several years after the Fifth Dalai Lama assumed temporal, as well as spiritual, leadership of Tibet—that construction began on the Potala Palace in Lhasa. As state leader, the Dalai Lama could no longer reside within a single monastery; subsequently the Potala became the main residence of the Dalai Lamas and a symbol of the Tibetan government until the Chinese Communist takeover of Lhasa in 1959. The Gaden Podrang at Drepung Monastery continued to exist after the Great Fifth moved to the Potala, however, and whenever one of the Dalai Lamas formally entered the monastic community or took his Geshe examinations, he typically took up temporary residence in the Gaden Podrang. Even today, Drepung Monastery in south India has a special residence for the Dalai Lama.

While traditionally the number of monks at Drepung was 7700, at its zenith Drepung housed more than 10,000 monks. After the invasion of Ti-

bet by Communist Chinese forces in 1959, though, only a few hundred Drepung monks were able to escape and follow His Holiness the Dalai Lama into exile in India, while many more were imprisoned or killed by the Communists.

At first the Drepung monks continued their studies and contemplations alongside other monastic scholars gathered at an abandoned British prison in Buxa Duar, West Bengal. Living conditions at Buxa were extremely difficult; at times food was scarce and tropical illnesses and tuberculosis were a constant threat. The monks at Buxa Duar were incredibly resilient, however. It is the opinion of His Eminence the 102nd Gaden Tripa that the time at Buxa Duar was in many ways incredibly productive—even vital to preserving the teachings during this crucial transitional period—as the monks there could devote themselves single-mindedly to their dharma studies.

In 1970, Drepung was reestablished in Mundgod, south India, on land generously provided by the Government of India. Through the great sacrifice and immense effort of the Buxa generation of monks, Drepung has not only survived in exile, but thrived. Today, the three colleges of Drepung—Gomang, Loseling, and Dheyang—are home to thousands of monks, and Drepung is once again a thriving center of scholarship and Buddhist practice.

LIBRARY OF TIBETAN WORKS AND ARCHIVES

IN the early years of exile, refugees escaping to India carried hundreds of manuscripts out of Tibet. On the arduous journey across the Himalayas, these precious texts were often guarded above all else. Once safe in India, many of these sacred manuscripts were offered to His Holiness the Dalai Lama. In order to preserve them, His Holiness conceived of and founded the Library of Tibetan Works and Archives in 1970.



Located within the premises of the Central Tibetan Administration, the LTWA was accorded the

status of National Library, Museum and Archive by the parliament-in-exile. The Library is now a repository for significant collections of artifacts, manuscripts and other records, while also serving as a centre for language and cultural education. It houses ten full-fledged departments including two significant libraries, a museum, audio-visual archives, research & translation bureau, cultural research and publication departments, oral history and science departments, and the administration. In recent years, the LTWA was designated as a Resource Centre for National Mission for Manuscripts of the Government of India.

As a centre for education, the LTWA has welcomed scholars from all corners of the globe, supporting research and study of the Tibetan language and culture, both classical and modern. Educational programs in language, philosophy, culture and other fields of Tibetan study are run on a regular basis.

DREPUNG LOSELING MONASTERY- SYMPOSIUM VENUE

AS Drepung Monastery grew in size, its founder, Jamyang Choeje Tashi Palden (1379-1449), appointed seven of his main disciples to teaching positions, one of these being a popular teacher, Khenpo Yeshe Lekden, the founder of **Drepung Loseling**. Loseling became the largest of Drepung's colleges, famous for its style of chanting, and for its outstanding academic tradition.

After the Communist invasion of Tibet in 1959, about two hundred monks were able to escape from Tibet, and to resume their studies alongside other exiled monastic scholars at the Buxa Dura Lama Camp in India. After a decade at Buxa, their numbers had increased to about three hundred monks who were able, through the generosity of the governments of India and Karnataka State, to resettle in South India. By 1973 the first new class



Other educational activities include specialized seminars and programs. With His Holiness the Dalai Lama's guidance, the LTWA has spearheaded the provision of science education for Tibetan monastics since 1999, partnering with Science for Monks to produce workshops and exhibits on specialized scientific topics for and with Tibetan monastics, and with the Emory-Tibet Science Initiative (ETSI) to create a comprehensive six-year long science curriculum. In partnership with ETSI, the LTWA participates in the creation of a new science lexicon in the Tibetan language, as well as in the production and dissemination of bilingual science textbooks and other science educational materials. At the heart of LTWA's participation in the ETSI is the development and inclusion of a sustainable science education program within the monastic core curriculum.

of monks since exile was admitted, and since that time the monastery has continued to flourish. Now home to more than 3,000 monks, Drepung Loseling has integrated the study of modern science into its curriculum.

In 1998, in the presence of His Holiness the Dalai Lama, Drepung Loseling embarked upon a formal partnership with Emory University in Atlanta, GA, USA which continues until today.

The Emory-Tibet Science Initiative is grateful for this long-term relationship with Drepung Loseling Monastery, and for both the invaluable support and wonderful venue that the monastery offered for the Emory-Tibet Symposium. In addition to making the main prayer hall and the new covered debate courtyard available for use by the conference, Drepung Loseling has also graciously provided accommodations and hospitality for the conference speakers, ETSI staff, and guests, as well as providing crucial assistance and insight with a myriad of details.

THANK YOU

The Emory-Tibet Science Initiative would like to acknowledge the generous support of:

The Dalai Lama Trust
Emory University
The Joni Winston Fund
The John Templeton Foundation
The Lostand Foundation
Judith McBean
Jayne Kushner

For their guidance and steadfast support, we offer special thanks to the staff of the Office of His Holiness the Dalai Lama and:

Mr. Chhime Rigzing
Mr. Tenzin Takhla
Mr. Jamphal Lhundup

Special thanks to those at Emory University whose commitment has made the Emory-Tibet Science Initiative possible:

President Emeritus James Wagner
President Claire Sterk
Vice-President Gary Hauk
Dr. Robert A. Paul, *former Dean of Emory College*
Dr. Philip Wainright, *Vice-Provost, Global Strategy and Initiatives*
Dr. Holli Semetko, *former Vice-Provost, International Affairs*
Ambassador Marion Creekmore Jr.

EMORY-TIBET SYMPOSIUM EXECUTIVE COMMITTEE

Geshe Lhakdor, Gaele Desbordes,
Lobsang Tenzin Negi

EMORY-TIBET SYMPOSIUM PLANNING COMMITTEE

Geshe Dadul Namgyal, Arri Eisen, Carol Worthman, Tsondue Samphel, Mark Risjord, Carol Beck, Jim Wynn, Tsetan Dolkar

EMORY-TIBET SYMPOSIUM TRANSLATION STAFF

Tsondue Samphel, Karma Thupten, Geshe Dadul Namgyal, Karma Tenzin, Lodo Sangpo, Lobsang Gonpo, Sonam Choephel, Khechok Jampa

EMORY-TIBET PARTNERSHIP

Lobsang Tenzin Negi, *Director*
Carol Beck, *Assistant Director*
Timothy Harrison, *Assistant Director*
Jim Wynn, *Project Coordinator*
Lindy Settevendemie, *Project Coordinator*
Tsetan Dolkar, *Program Coordinator*
Marcia Ash, *Program Coordinator*
Zipporah Slaughter, *Assistant Program Coordinator*
Tsondue Samphel, *Translator/Interpreter*
Geshe Dadul Namgyal, *Translator/Interpreter*
Karma Tenzin, *Assistant Translator/Interpreter*
Michael Romano, *Post Doctoral Fellow in Science Ed.*
Jacob Shreckengost, *ETSI Curriculum Developer*
Gaele Desbordes, *ETSI Staff Scientist*

EMORY-TIBET SCIENCE INITIATIVE FACULTY LEADERS

Arri Eisen, *Biology*
Carol Worthman, *Neuroscience*
Mark Risjord, *Philosophy of Science*
John Malko, *Physics*
Jane O'Connor, *English*

EMORY-TIBET SCIENCE INITIATIVE EXTERNAL ADVISORY BOARD

Geshe Thupten Jinpa
Christof Koch
Susan Bauer-Wu
Chris Impey
John Durant
Scott Gilbert
Owen Flanagan
Geshe Ngawang Samten

LIBRARY OF TIBETAN WORKS AND ARCHIVES SCIENCE SECTION

Geshe Lhakdor, *Director*

Tenzin Paldon, *Translation Officer*

Karma Thupten, *Translation Officer*

Tenzin Tamding, *Translation Officer*

Karma Tsundu, *Translation Officer*

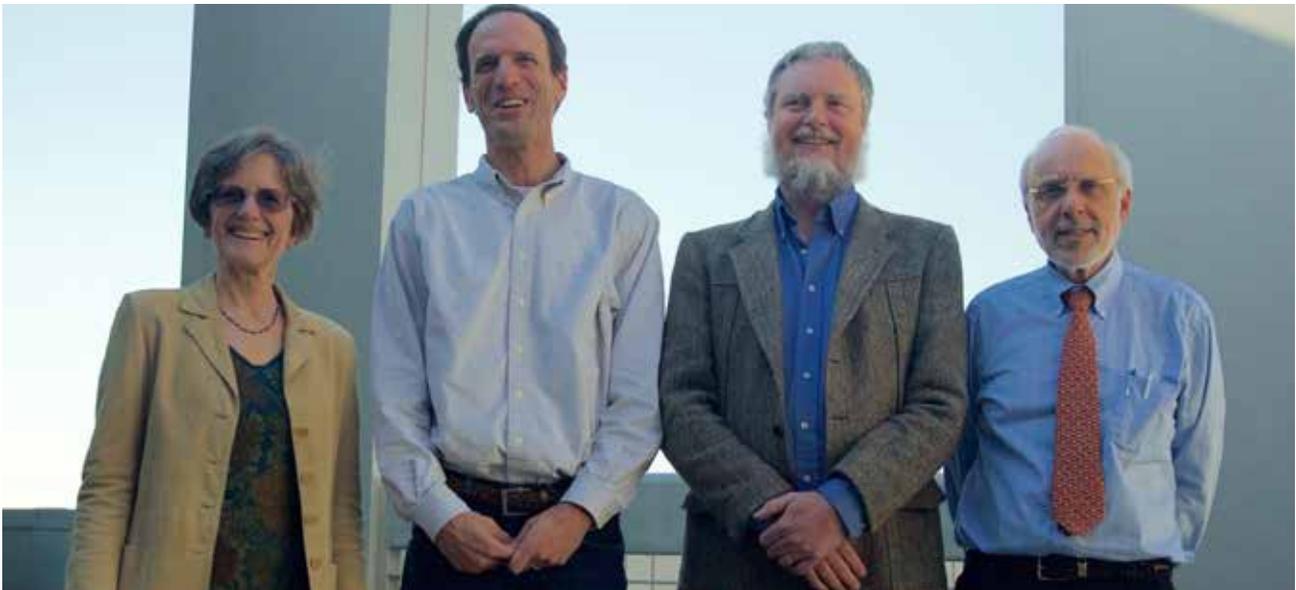
CONSERVANCY FOR TIBETAN ART & CULTURE

Many thanks to William Shuyler and the Conservancy for Tibetan Art and Culture for the design of the symposium logo, program, and related materials.

Special thanks to Tenzin Migmar for additional design services.

ETSI FACULTY LEADERS

Dr. Carol Worthman, Dr. Arri Eisen, Dr. Mark Risjord and Dr. John Malko



CONTACT INFORMATION:

Emory-Tibet Partnership/Emory-Tibet Science Initiative
1599 Clifton Rd. NE
Mailstop 1599-001-1CB
Atlanta, GA 30322 USA

Emory-Tibet Partnership: cbeck5@emory.edu

Emory-Tibet Science Initiative: tsetan.d@emory.edu

Please visit our website for more information: Tibet.emory.edu

SYMPOSIUM OVERVIEW

DAY ONE

DAY TWO

DAY THREE

SUNDAY DEC. 18

MONDAY DEC. 19

TUESDAY DEC. 20

MORNING SESSION

9:00 - 11:30am

SESSION 1

Welcome remarks

WITH His Holiness the Dalai Lama

PRESENTERS Robert Paul, Michel Bitbol, Carol Worthman

PANELISTS Tsondue Samphel, Geshe Lhakdor

MODERATOR Lobsang Tenzin Negi

SESSION 3

PHYSICS

WITH His Holiness the Dalai Lama

PRESENTERS Chris Impey, Thabkhe

PANELISTS Erin Bonning, Yundrung Konchok

MODERATOR Tsondue Samphel

SESSION 5

NEUROSCIENCE

WITH His Holiness the Dalai Lama

PRESENTERS Christof Koch, Lodeo Sangpo

PANELISTS Brian Dias, Gelek Gyaltzen

MODERATOR Carol Worthman

11:30am - 1:00pm

Lunch

Lunch

Lunch

AFTERNOON SESSION

1:00 - 3:00pm

SESSION 2

PHILOSOPHY

WITH His Holiness the Dalai Lama

PRESENTERS John Durant, Sonam Choephel

PANELISTS Lobsang Gonpo, Julia Haas, Sonam Wangchuk

MODERATOR Mark Risjord

SESSION 4

BIOLOGY

WITH His Holiness the Dalai Lama

PRESENTERS Scott Gilbert, Ngawang Norbu

PANELISTS Joel Zivot, Jampa Khechok

MODERATOR Arri Eisen

SESSION 6

SECULAR ETHICS

WITH His Holiness the Dalai Lama

PRESENTERS Kimberly Schonert-Reichl, Lobsang Tenzin Negi

PANELISTS Geshe Ngawang Samten, Timothy Harrison

MODERATOR Geshe Lhakdor

Conference Summary

Gaëlle Desbordes

Final Remarks His Holiness the Dalai Lama

3:00 - 3:30pm

Tea Break

Tea Break

Tea Break

3:30 - 4:30pm

Q&A with Presenters and Panelists

Q&A with Presenters and Panelists

Q&A with Presenters and Panelists

4:30 - 6:00pm

Monastic Science Demonstrations

Monastic Science Demonstrations

Monastic Science Demonstrations

7:00 - 8:30pm

Contemplative Research Panel

Translating Science into Tibetan

Science Research Conducted by Monastics