The goal of the Huang Fellows program is to identify exceedingly talented science students early in their academic careers and infuse in them the understanding that their future research, discoveries and career contributions are done in the context of society and for the benefit of society. The program is designed to highlight the importance of collaboration, open-mindedness, service, creativity and community. The summer curriculum is the centerpiece of the Huang Fellows experience.

A very important element of the Huang Fellows is the strong community bond that develops among the Fellows over the course of the summer and thereafter. In non-viral times, the shared living experience and the constant intellectual and social interactions of the summer are a key element in establishing these bonds. This year is different — to grossly understate the obvious. The summer program will be entirely virtual and the community building activities will be driven largely by the Fellows’ energy and creativity. The faculty and staff will facilitate these efforts, but it will be the Huang Fellows who will drive this summer’s effort, primarily those in the new cohort, but with the support of earlier cohorts.

We also plan to expand and increase the Huang Fellows programming during the year, including the addition of a half-credit “house course” in the Fall to increase the opportunities for interactions among the Fellows. We will discuss these efforts in more detail as the summer evolves.

There are three structured components of the summer program: the lab placements, the seminar series and the professional development activities. The program is intended to fully occupy the Fellows’ summer and, as a consequence, taking other summer courses is not permitted.

**Lab Placements**

Each Huang Fellow is placed in a lab for the summer. Some of the placements are in “wet labs” and some in policy research. The intention of the placements is to give each Fellow an intensive experience in the hierarchical structures in which science is done and science policy formulated. The expectation is that the Fellows will spend essential full-time on their lab placements (30+ hours per week.) While not a requirement nor an expectation, these summer lab placements often result in continued associations throughout the Fellows’ careers at Duke.

During this “different” summer, all of the placement are virtual. We nonetheless expect that you will have regular engagement with the PI and research team and that your work will be an important element in the lab’s collective efforts (understanding that you will be the most junior members of the team.)
At the end of the summer, each Fellow will make a presentation of their research. While typically done as a traditional poster presentation, this year, your “poster” presentations will be combined with your TedTalks.

Seminar Series

The purpose of the Seminar Series is to help students understand the social context in which science serves and to teach concepts and skills that help them understand and engage with the ethical debates arising in the field of science and technology. Ultimately, the seminar series aims to train students for impactful careers in the sciences, health and science policy professions.

The series will cover topics that include: the responsible conduct of research; professional empathy; science communication; bioethics; science policy analysis; distributive justice; the history of medicine, disease and popular culture; health inequality; and government regulation of science.

The 2023 Huang Fellows class will meet typically on Thursdays (some dates and times are different, refer to the schedule), from 10:30am to 12:00pm. (In deference to our students on the West Coast, we are endeavoring to move these to 11:00am.) Students are required to attend all sessions and complete all the class assignments. The seminar structure includes lectures provided by guest speakers from throughout the university, case studies, role-playing exercises and break-out group discussions which will create an active learning environment that gives Fellows the opportunity to become problem solvers, develop critical thinking and use the knowledge gained in the pre-assigned readings and lectures. We hope that the seminars will spawn on-going discussions among the Fellows.

Professional Development Activities

Throughout the summer, the Huang Fellows will engage in a series of professional activities to develop their skills sets and to expand their perspectives. These will include improving verbal skills through TedTalks and podcasts, preparing science posters, creating and developing science kits for 4th graders, engaging with the tiger rescue center, exploring the research done through the Lemur Center and the Division of Fossil Primates and discovering how an art museum use high-technology to restore and understand historic works of art (tentative). All of these activities will be conducted virtually.

This summer, we have added a new element to the professional development activities. Each week, the Fellows will meet with one of the leaders of the scientific community at Duke to discuss their life and professional experience – Dr. Sally Kornbluth (Provost); Dr. Robert Lefkowitz (Nobel Laureate); Dr. Mohamed Noor (Dean of Natural Sciences); Dr. Mary Klotman (Dean of Duke Medical School); Dr. Ravi Bellamkonda (Dean of Engineering); Dr. Christopher Kontos (head of MD/PhD program); Dr. Larry Carin (Duke Vice President for Research), Dr. Mark McClellan (Director of Margolis Center for Health Policy), Dr. Valerie Ashby (Dean of Trinity College of Arts & Sciences) and Dr. John Blackshear (Dean of Students).
Weekly Agenda

**May 19th @ 1:30pm EST – Orientation**
The opening session will review the program as a whole for the Huang Fellows, as well as beginning the process of building a community amongst them.
*Orientation:* Ron Grunwald, Buz Waitzkin, & William Krenzer

**May 20th @ 4:00pm – Professional Development**
*Guest:* Mohamed Noor, PhD – Dean of Natural Sciences

**May 21st @ 4:30pm EST – Seminar**
*“The Ethics of Experimenting with Human Brain Tissue”*
*Seminar leader:* Nita Farahany, JD, MA, PhD, – Director, Duke Initiative for Science & Society

**May 26th & 28th @ 11:00am EST – Professional Development**
*“How to Talk about Science with Impact”*
*Seminar leader & Facilitator:* Jory Weintraub, PhD – Duke Initiative for Science & Society
During this session, students will learn the basics of talking about science effectively and persuasively. They also will understand the importance of emphasizing the impact of science on society. The Fellows will apply what they learned in this session during the TED Talks activity

**May 27th @ 9:00am – Professional Development**
*Guest:* Christopher Kontos, MD – Professor of Medicine; Director, Medical Scientist Training Program; Professor, Pharmacology and Cancer Biology; Member of Duke Cancer Center

**June 2nd @ 11:00am EST - “How Your Science Impacts My Life” – Professional Development**
*Instructor:* Ben Shepard – Duke Initiative for Science & Society
Each Fellow will produce a podcast telling the story of their lab work during the summer and a story of an individual who is affected by the science of the lab. This activity offers an opportunity to practice and develop leadership, creativity, science communication, team collaboration, and understanding of the impact science has on someone’s life.

**June 3rd @ 4:00pm EST – Professional Development**
*Guest:* Sally Kornbluth, PhD – Duke University Provost

**June 4th @ 11:00am EST – Seminar**
*TBD*

**June 9th @ 10:00am EST – Virtual Conversation/Discussion with the North Carolina Tiger Rescue – Professional Development**
We will have a discussion with Katie Cannon, the educational director, about the mission and goal of the North Carolina Tiger Rescue, supported by Victoria Grant, Huang Fellow Class of 2020.

**June 10th @ 4:00pm EST – Professional Development**
*Guest:* Ravi Bellamkonda, PhD – Dean, Pratt School of Engineering; Professor, Department of Biomedical Engineering
June 11th @ 11:00am EST – History of Pandemics - Seminar

  Lecturer: Jeff Baker, MD, PHD – Director, Duke Trent Center for Bioethics, Humanities & History of Medicine; Director, Program in the History of Medicine; Professor of Pediatrics and History

June 16th @ 11:00am EST – Discussion about Science Kits – Professional Development

Put yourself back into your 10-year old mind. What would have been the best way to teach you to understand and appreciate science? We will have a discussion with Willow Alston-Socha, District K-12 Science Specialist, about what should go into the science kits you will develop for a fourth grade class.

“Science Kits for Kids” Contest

Divided into four teams, the Fellows will design and produce and assemble science kits for use by fourth graders in the local public schools. Team members will enhance their teamwork and leadership skills, as well as serve the community through creative applications of STEM. Each prototype of the science kits should be easy to replicate by the targeted student age group and affordable (up to $5/kit). The kits must support the established criteria established for public school science curriculum. [http://www.dpi.state.nc.us/curriculum/science/scos/support-tools/#standards](http://www.dpi.state.nc.us/curriculum/science/scos/support-tools/#standards)

June 17th @ TBD – Professional Development

  Guest: Lawrence Carin, PhD – Duke Vice President of Research; James L. Meriam Distinguished Professor of Electrical and Computer Engineering

June 18th @ 11:00am EST – Seminar

  “The Push and Pull of Big Data – Balancing Values”

  Guest Speaker: Jeff Ward, JD – Associate Dean for Technology and Innovation; Associate Clinical Professor of Law; Director, Duke Center on Law & Technology

June 23rd @ TBD – Virtual Discussion with the Duke Lemur Center and the Division of Fossil Primates– Professional Development

We will have a discussion with the staff some of the Duke Lemur Center and the Division of Fossil Primates about the research they are conducting. Prior to the meeting, we will have access to videos that will give us a virtual tour of their facilities.

June 25th @ 11:00am EST – Seminar

  “Birdsong and Braininess: How Occam’s Razor is Sometimes Dulled”

  Seminar leader: Stephen Nowicki, PhD – Professor of Biology, Psychology & Neuroscience

July 29th @ 4:00 pm EST – Professional Development

  Guest: Valerie Ashby, PhD – Dean of Trinity College of Arts & Sciences

June 30th @ 11:00am EST – How to make a Poster – Professional Development

  Lecturer: Ron Grunwald, PHD – Senior Lecturer, Department of Biology

July 1st @ 4:00pm – Professional Development

  Guest: Mark McClellan, MD, PhD – Director of the Duke Margolis Center for Health Policy
**July 2nd @ 11:00am EST – “Who Makes Science Policy?” - Seminar**
How is science regulated and controlled? How do the states, the federal government and international agencies interact to set science policy? How is scientific research funded?

*Seminar leader:* Michael “Buz” Waitzkin, JD – Deputy Director, Duke Initiative for Science & Society

**July 7th @ 11:00am EST – Responsible Conduct of Research (RCR) Training – Professional Development**

*Lecturer:* Ron Grunwald, PHD – Senior Lecturer, Department of Biology

**July 8th @ 4:00 pm EST – Professional Development**

*Guest:* John Blackshear, PhD – Dean of Students

**July 9th @ 11:00am EST – History of Pandemics - Book Discussion – Seminar (cont’d)**
After Dr. Baker’s first presentation the Huang Fellows will select books regarding the history of pandemics and continue their conversation.

*Lecturer:* Jeff Baker, MD, PHD – Director, Duke Trent Center for Bioethics, Humanities & History of Medicine; Director, Program in the History of Medicine; Professor of Pediatrics and History

**July 14th @ 11:00am EST – Poster Review Session – Professional Development**

This day will be spent reviewing the posters that the students have created for the virtual poster session that we will be holding.

*Lecturer:* Ron Grunwald, PHD – Senior Lecturer, Department of Biology

**July 15th @ 4:00pm EST – Professional Development**

*Guest:* Robert Lefkowitz, MD – Professor of Medicine; James B. Duke Distinguished Professor of Medicine; Professor of Biochemistry; Professor of Pathology; Professor of Chemistry; Member of the Duke Cancer Institute; Nobel Laureate

**July 16th @ 11:00am EST – Seminar**

*“Introduction to Technology Policy”*

*Seminar Leader:* Matt Perault, JD – Director, Center on Science & Technology Policy in Initiative for Science & Society

**July 16th @ 5:00 pm EST – Professional Development**

*Guest:* Mary Klotman, MD – Dean of Duke Medical School and Vice Chancellor for Health Affairs

**July 21st & 22nd @11:00am EST – TedTalk Summer research experience endpoint – Professional Development**
The Huang Fellows will each deliver a 10-minute presentation which synthesizes their work during the summer, what they have learned, how they overcame the challenges encountered during their research experience and how they will continue their work. Presentations will occur over the span of the two days. Additionally, students will synthesize their research experience in a poster. These posters will be displayed digitally, and potentially presented again in a more traditional forum at a later date.

**Date TBD - Science and the Arts: How Science is used to Preserve Art – Professional Development**
Virtually Visit the North Carolina Museum of Art. Fellows will meet with the staff of the North Carolina Museum of Art Conservation Center and talk with the artist/scientists about their successes and challenges in using state of the art technology to restore historic works of art.

**Huang Fellows Perspectives: Reflecting on your summer experience and the impacts of science**
Each Fellow will write two blog-post style essays (each piece will not exceed 5,000 characters in length including spaces) inspired by a seminar topic and an enrichment activity respectively. The essays will be published on the Science & Society website. The purpose of this assignment is to build science writing skills while providing Fellows with the opportunity to reflect on their summer experience, frame their own take-away message and share their personal perspectives with the rest of the group and the wider Duke and non-Duke student communities.

**Huang Fellows Social Night**
Every Wednesday night throughout the summer, the Fellows will gather on Zoom. The content and format of these weekly evening encounters will be structured by the Huang Fellows

---

**School Year Activities**

**Huang Fellows “House Course”**
During the Fall semester, the faculty will facilitate a once weekly half-credit “house course”. The course will serve as a vehicle to continue the conversations among the Huang Fellows begun during the summer programming.

**Huang Fellows, Principal Investigators, and Faculty Dinner**
Huang Fellows will gather together, have dinner and meet with their lab mentors. The event will offer students the opportunity to network, think of their own path to success and to realize how passion, knowledge, education, personal skills, context and chance play a role in shaping someone’s career.

**The Huang Fellows Book Club**
Fellows will meet several times each semester and discuss recent books or scientific articles, preferably written by Duke faculty. We plan on inviting book authors, journalists, faculty or researchers – either in person or by Zoom – to analyze the book topic and answer student questions.

**Huang Fellows Film Club**
Huang Fellows are invited to watch and analyze a film about ethics, science, and society. We plan on inviting a special guest, preferably a researcher whose area of research interferes with the film science topic.

**Huang Fellows Professional Development Evening**
Fellows will have the opportunity to meet a key Duke Staff or faculty member who would address professional development issues such as successful applications to the Med School; what is expected from an interview; how to read between the lines when choosing the right academic program; how to build emotional intelligence and leadership etc.

**Huang Fellows Go Social**
The Huang Fellows Social Events Committee will have a designated budget to plan one or two events per semester, which are relevant and open to all the Fellows. Attendance of minimum 50% of the Fellows is required to receive funding for an event.

**Huang Fellows Mentoring Program**
The mentoring program will offer opportunities for vertical integration of all classes of Fellows, through one-on-one pairing. Incoming Fellows will gain insights that will help them make the most of their Huang Fellowship year and expand their network at Duke. Older Fellows will have the opportunity to share their experience and knowledge gained during the Huang Fellows Immersive Summer and Sophomore year as well as build leadership, collaboration and mentoring skills that will benefit them during their future careers as scientists, doctors, and policy practitioners.

**The Huang Fellows Program Signature Event: Annual Symposium**
This vertically integrated project will give all four cohorts of the Huang Fellows the opportunity to work together on designing and implementing a Symposium. The topics of the symposium for the past two years was the 200th Anniversary of the Publication of *Frankenstein* and Artificial Intelligence.

Summer 2020
The purpose of the Seminar Series is to help students understand the social context in which science serves and to teach concepts and skills that help them understand and engage with the ethical debates arising in the field of science and technology. Ultimately, the seminar series aims to train students for impactful careers in the sciences, health and science policy professions.

The series will cover topics that include: the responsible conduct of research; professional empathy; science communication; bioethics; science policy analysis; distributive justice; the history of medicine, disease and popular culture; health inequality; and government regulation of science.

The Seminar Series is presented during the summer component of the Huang Fellows Program. The 2022 Huang Fellows class will meet typically on Thursdays (some dates/locations are different, refer to the schedule), from 12:00 to 1:30 p.m. Students are required to attend all sessions and complete all the class assignments. The seminar structure includes lectures provided by guest speakers from throughout the university, case studies, role-playing exercises and break-out group discussions which will create an active learning environment that gives Fellows the opportunity to become problem solvers, develop critical thinking and use the knowledge gained in the pre-assigned readings and lectures.

May 30th – "The Role of Storytelling and Personal World-Views (including Religious Belief) in Complex Medical Decision Making"

Science and society interact in the world of medicine in unique ways that touch nearly everyone at some point. The dominant languages in the complex institutions where medicine is practiced are the languages of biology, economics, law, and risk management. However, the actual ways in which patients and families experience the challenges of illness, suffering, and dying do not translate well into any of these languages. One reason this observation is important is that these experiences are crucial for good decision making. What should be our approach to complex decision making, and what role do other languages (such as the language of storytelling or personal belief) have in the decision-making process?

Guest Speaker: Raymond Barfield, MD, PhD – Associate Professor of Pediatrics and Christian Philosophy

Dr. Barfield came from St. Jude Children's Research Hospital, where his research and practice focused on improving immune therapies for childhood cancer (including bone marrow transplantation and antibody therapy) and understanding the moral aspects of decision-making in medical research involving children. At Duke, he has turned much of his effort towards bridging activities in theology and medicine. On the medical side of campus, he continues to practice as a pediatric oncologist, and he directs the Pediatric Quality of Life/Palliative Care Program, which combines medical care, education, and research to benefit children with complex, chronic, or potentially life-limiting disease. In the Divinity School, he develops courses that address topics at the intersection of theology, medicine and culture. He also teaches courses in Christian philosophy. He is the director of a new program for pre-meds called Reimagine Medicine.
**June 6th. “Introduction to History of Science, Technology, and Medicine”**

Through this seminar, the Fellows will be introduced to the history of science, technology, and medicine through a comparative approach which allows them to understand medicine, science, and technology in different historical contexts.

**Lecturer:** Jeff Baker, MD, PHD – Director, Duke Trent Center for Bioethics, Humanities & History of Medicine; Director, Program in the History of Medicine; Professor of Pediatrics and History

---

**June 14th. “The Ethics of Experimenting with Human Brain Tissue”**

If researchers could create brain tissue in the laboratory that might appear to have conscious experiences or subjective phenomenal states, would that tissue deserve any of the protections routinely given to human or animal research subjects?

This question might seem outlandish. Certainly, today’s experimental models are far from having such capabilities. But various models are now being developed to better understand the human brain, including miniaturized, simplified versions of brain tissue grown in a dish from stem cells — brain organoids. And advances keep being made.

**Seminar leader:** Nita Farahany, JD, MA, PhD, – Director, Duke Initiative for Science & Society

---

**June 20th. “Birdsong and Braininess: How Occam’s Razor Is Sometimes Dulled”**

Birdsong is a learned trait and learned features of male song are known to affect female mating preferences in many species. The “developmental stress hypothesis” explains this relationship by suggesting that song serves as indicator of male quality. This is because males that fare better in the face of developmental stress (1) can invest more resources in brain development, thus optimizing song learning, and (2) are likely to be superior as mates in other ways as well. We proposed this hypothesis 20 years ago and it has since been supported by data from labs around the world. An obvious follow-on hypothesis, one we also proposed, is that the specific benefit females gain by mating with males having well-learned songs is that these males must have higher cognitive capacity in general, given their better-built brains. That is, better singers should be smarter. The simplicity and intuitive appeal of this idea led many researchers to assume it must be true even before it was adequately tested. When definitive experiments were finally completed, however, this elegant hypothesis found itself crushed under the unrelenting weight of contrary data.

**Seminar leader:** Stephen Nowicki, PhD – Professor of Biology, Psychology & Neuroscience

---

**June 25th. “How to Talk about Science with Impact”**

During this session, students will learn the basics of talking about science effectively and persuasively. They also will understand the importance of emphasizing the impact of science on society. The Fellows will apply what they learned in this session during the Mini-TED Talks activity

**Seminar & Facilitator leader:** Jory Weintraub, PhD – Duke Initiative for Science & Society

---

**Note:** The Science Communication Workshop includes two enrichment activities, focused on building the skills taught in the seminars:

- **The Huang Fellows Mini TED Talks (July 9-11)**
By delivering 5-minute, fast-paced presentations, the Fellows will have the opportunity to communicate to a diverse audience the results of their research, to practice their public speaking skills and to build interaction.

- “How Your Science Impacts My Life” Podcast (July 16 & 18)
Each Fellow will produce a podcast telling the story of their lab work during the summer and a story of an individual who is affected by the science of the lab. This activity offers an opportunity to practice and develop leadership, creativity, science communication, team collaboration, and understanding of the impact science has on someone’s life. Trainings will be held on the evenings of June 6th & June 13th.

**June 27th – “Who Makes Science Policy?”**
How is science regulated and controlled? How do the states, the federal government and international agencies interact to set science policy? How is scientific research funded?

*Seminar leader: Michael “Buz” Waitzkin, JD – Deputy Director, Duke Initiative for Science & Society*

**July 2nd – “Science, Stigma and the Media”**
This session offers an international perspective on how stigma associated with ethnicity, race, and disease affects and is affected by science. The session will present and encourage class discussions about the relationships between stigma, science and the media and how the negative impacts of stigma can be reduced.

*Seminar leader: Emilia Chiscop-Head, PhD – Scientific Integrity Associate, Advancing Scientific Integrity, Services and Training (ASIST)*

**July 11th – “Starting a Company” (Rescheduled to Fall 2019)**
In this talk we will use an interactive approach to answer fundamental questions on how to start a company based on your own idea and vision.

*Seminar leader: Ken Gall, PhD – Associate Dean for Entrepreneurship; Professor & Departmental Chair, Mechanical Engineering & Materials Science; Professor in Orthopedic Surgery; Core Faculty in Innovation & Entrepreneurship*

**July 25th – “Changing the paradigm from 'race' to human genome variation”**
Knowledge from the Human Genome Project and research on human genome variation increasingly challenges the applicability of the term 'race' to human population groups, raising questions about the validity of inferences made about 'race' in the biomedical and scientific literature. Despite the acknowledged contradictions in contemporary science, population-based genetic variation is continually used to explain differences in health between 'racial' and 'ethnic' groups. In this seminar, we will discuss how resolution of apparent paradoxes in relating biology to 'race' and genetics requires thinking 'outside of the box'.

*Seminar leader: Charmaine Royal, PhD – Associate Professor, Department of African & African American Studies*
Personal Development Series

Emotional Intelligence and Potential for Leadership

**May 28th - The Huang Fellows Debate**
(Training on May 23rd)

Topic to be selected by Huang Fellows. Last two year’s topics were “the ethics of de-extinction” and “whether social media should be regulated like a public utility”. The Fellows will be divided into four teams and two debates will be held. The (non-debating) Fellows will serve as judges along with faculty.

**July 9-11th - The Huang Fellows Mini TED Talks**
By delivering 5-minute, fast-paced presentations, the Fellows will have the opportunity to communicate to a diverse audience the results of their research, to practice their public speaking skills and to build interaction.
Facilitator: Jory Weintraub, PhD – Science and Society

Collaboration

**May 20th - The Team Building Challenge**
Participants develop trust, cooperation, teamwork and leadership skills through a customized low rope course or creative problem-solving obstacles.

**June 3rd - Meet the Lemurs**
Research tour at the Duke Lemur Center.

**June 4th - Meet Your Science Peers**
A gathering with other summer Fellows.

**July 15th - Visit the NC Tiger Rescue**
Video chat with current Huang Fellow, Victoria Grant about the NC Tiger Rescue, then visit.

Academic Excellence

**July 26th - Summer research experience endpoint: Final Poster Session**
(Poster Preparation Session scheduled on July 17)
The Huang Fellows will deliver a 10-minute presentation which synthesizes their work during the summer, what they have learned, how they overcame the challenges encountered during their research experience and how they will continue their work. Students will synthesize their research experience in a poster after they have been attended the Poster Design Workshop during which they learn how to create a professional-looking poster.

**BSURF**
We encourage our Huang Fellows to participate in BSURF events. The summer BSRUF schedule for will be shared soon.
Openness

June 11th - Science and the Arts: How Science is used to Preserve Art
Visit the North Carolina Museum of Art. Fellows meet with the staff of the North Carolina Museum of Art Conservation Center and talk with the artist/scientists about their successes and challenges in using state of the art technology to restore historic works of art.

Huang Fellows Perspectives: Reflecting on your summer experience and the impacts of science
Each Fellow will write two blog-post style essays (each piece will not exceed 5,000 characters in length including spaces) inspired by a seminar topic and an enrichment activity respectively. The essays will be published on the Science & Society website. The purpose of this assignment is to build science writing skills while providing Fellows with the opportunity to reflect on their summer experience, frame their own take-away message and share their personal perspectives with the rest of the group and the wider Duke and non-Duke student communities.

Huang Fellows Discussion Night
This activity was suggested by the 2017 Fellows and was rooted in their eagerness to learn, collaborate and enthusiastically share their own thoughts with others outside the presence of faculty and staff. Every Thursday night throughout the summer (when there is not another scheduled event), the Fellows will gather in the Brodhead Center Meeting Room 241 from 6-8pm to have dinner and reflect on their summer experience. Similar to the activity above, the objective is to build communication skills and provide the Fellows with the opportunity to reflect on the topics covered through the Huang Curriculum, frame their own take-away message and share their personal perspectives with the rest of the group.

Service

June 18th - “Science Kits for Kids” Contest
(Training scheduled on June 3rd)
Divided into four teams, the Fellows will design, produce and assemble in individual bags/boxes 15 science kits inspired by kiwicrate.com. Team members will enhance their teamwork and leadership skills, as well as serve the community through creative applications of STEM. Each team will develop a concept for crafting a science kit which will serve as a teaching tool for Durham school science teachers to enhance science skills of children of different ages (3 to 5 grade). The exercise will require the Fellows to reimagine themselves as 10 year olds and how they would have sought to learn and understand science at that stage of their development. Each prototype of the science kits should be easy to replicate by the targeted student age group and affordable (up to $5/kit).
The kits will be donated to Durham, Orange and Johnston County Schools. Link to the North Carolina Public Schools Curriculum: http://www.dpi.state.nc.us/curriculum/science/scos/support-tools/#standards
Year-long Activities

Huang Fellows, Principal Investigators, and Faculty Dinner
Once a semester, Huang Fellows will gather together, have dinner and meet with their lab mentors. The event will offer students the opportunity to network, think of their own path to success and to realize how passion, knowledge, education, personal skills, context and chance play a role in shaping someone’s career. The first event will be held at Mateo Tapas on September 18, 2019 at 7pm.

The Huang Fellows Book Club
Fellows will meet several times each semester and discuss recent books or scientific articles, preferably written by Duke faculty. We plan on inviting book authors, journalists, faculty or researchers – either in person or by Skype – to analyze the book topic and answer student questions.

Huang Fellows Film Club
Huang Fellows are invited to watch and analyze a film about ethics, science, and society. We plan on inviting a special guest, preferably a researcher whose area of research interferes with the film science topic.

Moderator: Thomas Williams, J.D. – Science & Society

Huang Fellows Professional Development Evening
Fellows will have the opportunity to meet a key Duke Staff or faculty member who would address professional development issues such as successful applications to the Med School; what is expected from an interview; how to read between the lines when choosing the right academic program; how to build emotional intelligence and leadership etc.

Huang Fellows Go Social
The Huang Fellows Social Events Committee will have a designated budget to plan one or two events per semester, which are relevant and open to all the Fellows. Attendance of minimum 50% of the Fellows is required to receive funding for an event.

Huang Fellows Mentoring Program
The mentoring program will offer opportunities for vertical integration of all classes of Fellows, through one-on-one pairing. Incoming Fellows will gain insights that will help them make the most of their Huang Fellowship year and expand their network at Duke. Older Fellows will have the opportunity to share their experience and knowledge gained during the Huang Fellows Immersive Summer and Sophomore year as well as build leadership, collaboration and mentoring skills that will benefit them during their future careers as scientists, doctors, and policy practitioners.

The Huang Profile of the Month
Each month, two 2022 Fellows will interview two 2021 Fellows and will produce a podcast which will be published on the website. The interviews offer the opportunity to practice communication and public speaking and to inform the public about the Huang Fellows Program. The interview questions will focus on Fellow’s research interests, how their professional goals evolved since they started their studies at Duke, their ongoing projects and most recent accomplishments, who are their mentors at Duke and beyond. Questions could also focus on student passions, books, movies etc.

Deadline: By the 15th of each month the two podcasts will be delivered to Julia Orlidge-Diehl
The Huang Fellows Program Signature Event: Annual Symposium
This vertically integrated project will give all four cohorts of the Huang Fellows the opportunity to work together on designing and implementing a Symposium. The topics of the symposium for the past two years was the 200th Anniversary of the Publication of Frankenstein and Artificial Intelligence.