Arnold and Mabel Beckman Foundation 2020 Annual Report

SUPPORTING YOUNG SCIENTISTS TODAY FOR TOMORROW'S BREAKTHROUGH DISCOVERIES

Arnold and Mabel BECKMAN FOUNDATION

Our Mission

Dr. Arnold O. Beckman and his wife Mabel established the Foundation to support leading edge research in the fields of chemistry and life sciences, broadly interpreted, and particularly to foster the invention of methods, instruments, and materials that open up new avenues of research and application in those disciplines and related sciences.

BECKMAN YOUNG INVESTIGATORS 1991

BECKMAN POSTDOCTORAL FELLOWS 2015

BECKMAN SCHOLARS PROGRAM 1998

BECKMAN ARGYROS VISION RESEARCH 2014

BECKMAN LEGACY PROGRAM 2020

BECKMAN INSTRUMENT GRANTS 1999

BECKMAN ANNUAL SYMPOSIUM 1999

On the cover: *2018 Beckman Scholar Stephanie Song presents her research during the annual Beckman Symposium.*

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In Memoriam: William H. May

Right: *A collection of Speaker screenshots from the first virtual Beckman Symposium.*

Resilience and Recovery

A Message from the Executive Director

Anne Hultgren, PhD

Dear “Beckman Family” and Friends,

To all who have lost loved ones or are struggling with lingering illness or uncertainty, we send our deepest sympathy and hope that you find comfort and healing as soon as possible. At the Foundation, we lost our long-time friend, colleague, and Chair of the Board, William H. May, to lung cancer. Please see the tribute at the end of this report to his life of service to the Beckman organization and later the Beckman Foundation.

I spent ten years at the Department of Homeland Security working on biological defense issues, and “resilience” and “recovery” were major themes of our work — issues brought to the forefront this past year in so many ways. For me, resilience is having both the tools and ability to act quickly to adapt and respond in a productive way to a situation as it unfolds, even without perfect knowledge of the threat or extent. Recovery is a much longer process that involves reflection and analysis to fully understand what occurred while designing the “new normal” that will emerge as we incorporate lessons learned into our lives going forward. While 2020 was filled with the challenges of rapidly responding, changing, and adapting, as we begin to look back, we found many opportunities to grow in ways that will positively impact our recovery and operations for years to come.

I am very proud of the commitment of our staff here at the Foundation in embracing change, and the research community we support in bringing forward so many candid ideas for how funders can better support them. We are committed to continuing those discussions and implementing improvements in our grant programs.

And we also celebrated major successes as well, notably that 1996 BYI Jennifer Doudna was honored with the Chemistry Nobel Prize for her groundbreaking work with CRISPR-Cas9! Congratulations Dr. Doudna!

We look forward to 2021 as we begin to recover our sense of normal and focus on the positive changes that have resulted from the year that was 2020.

Did You Know?

The Foundation implemented DocuSign, a cloud-based document generator, to collect electronically signed grant award terms. This allows for a quick and efficient contracts process. By utilizing the electronic "envelopes" and secure eSignature features, it also greatly reduces the use of paper, which in turn reduces overall water usage and carbon footprint.

2020 At-A-Glance

Foundation's Environmental Savings with DocuSign

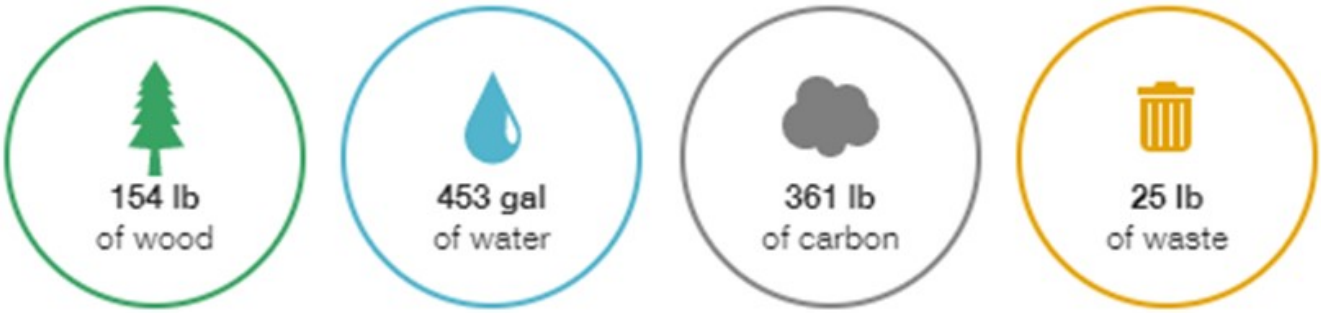


Image from: https://app.docusign.com/reports/overview

AWARDEE

Awardee Highlights from the Past Year

Jennifer Doudna, PhD
1996 Beckman Young Investigator
Received the Nobel Prize in Chemistry 2020

Noelle Stiles, PhD
2016 AOB Postdoctoral Fellow
Received NIH/NEI BRAIN K99/R00 Grant

Kim See, PhD
2019 Beckman Young Investigator
Elected to Chemical Reviews Early Career Board

Cody Martin & Angelica Lang
2018 & 2019 Beckman Scholars
Received both the Astronaut Scholarship and the Goldwater Scholarship***

Anneliese Barron, PhD
1998 Beckman Young Investigator
Received 2020 NIH Director's Pioneer Award

**Jonah Stiel was also named an Astronaut Scholar.*

***Chris Bragança, Shaoni Dasgupta, Hope Kirby, Angelica Lang, Vennela Mannava, Jamison Takashima, Jacob Watts, and Anneka Williams were also named Goldwater Scholars.*

Awardee Highlights—cont'd.

Matthew Akamatsu, PhD
2016 AOB Postdoctoral Fellow
Received the 2020 Porter Prize for Research

Nicholas Ball, PhD
2003 Beckman Scholar
Received Henry Dreyfus Teacher-Scholar Award

Marlene Lawston
2018 Beckman Scholar
Received NIH Oxford-Cambridge Scholarship

Yevgenia Kozorovitskiy, PhD &
Elena Gracheva, PhD
2015 & 2013 Beckman Young Investigators
Received NSF Career Award

Nivedina Sarma
2018 Beckman Scholar
Named NSF Graduate Research Fellow

Megan Jackson, PhD
2020 Arnold O. Beckman Postdoctoral Fellow
Received ACS Division of Inorganic Chemistry Young Investigator Award

***Above**: Arnold and Mabel Beckman Foundation's Board of Directors.*

I. Leadership

"Hire the best people and then get out of their way." - Dr. Beckman

We're grateful to the team of individuals who dedicate themselves to the success of the Arnold and Mabel Beckman Foundation, including:

Arnold and Mabel BECKMAN FOUNDATION

Board of Directors

Mrs. Jacqueline Dorrance-Tomlinson (Secretary)

Mr. Jon Fosheim

Dr. Jeffrey Johnston, PhD

Dr. Lawrence Kline, MD

Dr. Andrew Lyon, PhD

Mr. William May (Chairman)

Mr. Steven Pizula

Mrs. Lynn Rahn (Treasurer-Elect)

Mr. Peter Simon

Mr. Gary Wescombe (Treasurer)

Dr. Deborah Wuttke, PhD

LEADERSHIP

Foundation Staff

Ms. Catrina Bryant, BA

Ms. Jackie Chamberlin, CPA, MBA, MBT

Ms. Esther Devanney, BS

Mrs. Tiana Godges, BA

Dr. Anne Hultgren, PhD

Ms. Elizabeth Koppe, BA

Ms. Tiffany Ng*

Mrs. Nicole Patras, BA

Ms. Kaerie Ray, MBA

Scientific Advisory Council

Dr. Annaliese Franz, PhD

Dr. Kent Hill, PhD

Dr. Philip LeDuc, PhD

Dr. Anne McNeil, PhD

Dr. Karl Mueller, PhD (co-Chair)

Dr. Kim Orth, PhD

Dr. Jason Shear, PhD (co-Chair)

The Foundation's Program Executive Committees are instrumental in leading the proposal review committees, developing final award recommendations, and conducting annual assessments of the program requirements. Our special thanks to the 2020 Executive Committee members:

BYI Executive Committee

Prof. Susana Cohen-Cory, PhD

Prof. Shiv Halasyamani, PhD

Prof. Ke Hu, PhD

Prof. Vassiliy Lubchenko, PhD

BSP Executive Committee

Prof. Jeff Brodsky, PhD

Prof. Laura Hunsicker-Wang, PhD

Prof. Carol Parish, PhD

Prof. Margaret Saha, PhD

AOB Postdoctoral Fellows Executive Committee

Prof. Carolyn Anderson, PhD

Prof. David Forbes, PhD

Prof. Philip LeDuc, PhD

Prof. Jill Millstone, PhD

OC Beckman Legacy Executive Committee

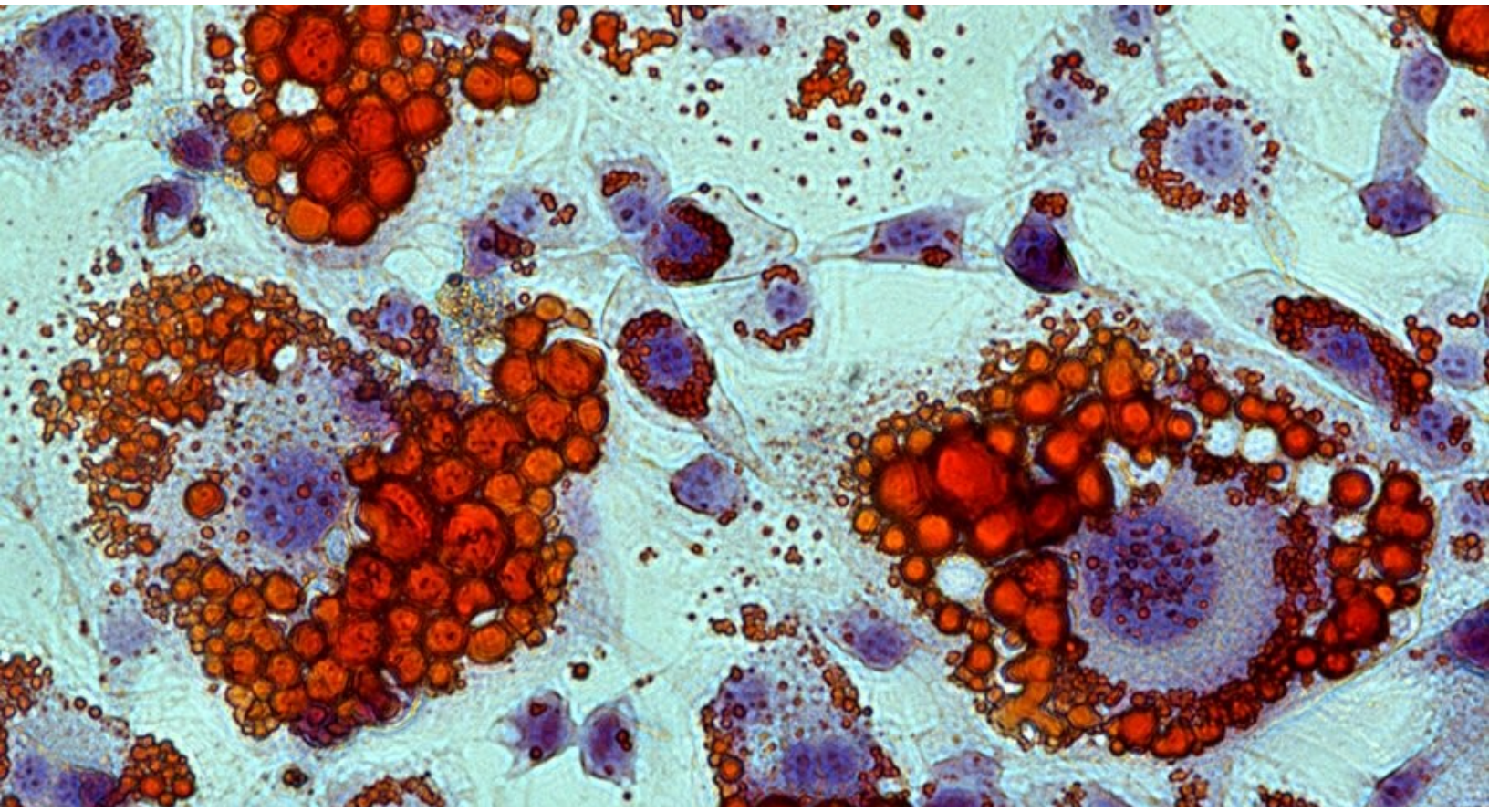
Dr. Noreen Galvin, PhD

Prof. Brian Goess, PhD

Dr. Peter Nemes, PhD

Dr. Christina Stallings, PhD

**Served in this role for part of 2020*



***Above**: Adipocytes differentiates from 3T3-L1 cells were fixed and stained with Oil Red O for lipid droplets and counterstained with hematoxylin for nuclei. Image was acquired using Nikon Ti-E microscope at 200x magnification. Photo by Xiaojing Su, in the lab of 2018 BYI Ashleigh Theberge, PhD.*

II. Beckman Young Investigator Program

The Beckman Young Investigator (BYI) Program provides four years of research support amounting to $600,000 to promising young faculty members in the early stages of their academic careers in the chemical and life sciences, broadly defined, who have not yet received a major award from another organization.

Projects must be truly innovative, high-risk, and show promise for contributing to significant advances in chemistry and the life sciences, with preference to those that foster the invention of methods, instruments and materials that will open new avenues of research in science.

2020 BYI National Recognition:

NSF Career Award
Jia Niu, Jean-Hubert Olivier

Packard Fellowship
Dipti Nayak, Leslie Schoop, Kim See, Keriann Backus

NIH New Innovator
Dmitriy Aronov, Victor Acosta

2020 BYI Program Stats:

300+ Applicants

10 Researchers Selected for Awards, Representing **10** Institutions

$6 Million in Funding for ‘16-’20 Awardees

BYI

2020 Beckman Young Investigator Awardees

John Blazeck, PhD
Georgia Institute of Technology

Jennifer Bridwell-Rabb, PhD
University of Michigan

Laura Duvall, PhD
Columbia University
"Peptide signals that enforce paternity in mosquitoes"

Andrea Giovannucci, PhD
University of North Carolina, Chapel Hill

Stavroula Hatzios, PhD
Yale University

Dipti Nayak, PhD
University of California, Berkeley
"Reversing the methane cycle: decrypting microbial fingerprints and their global impact"

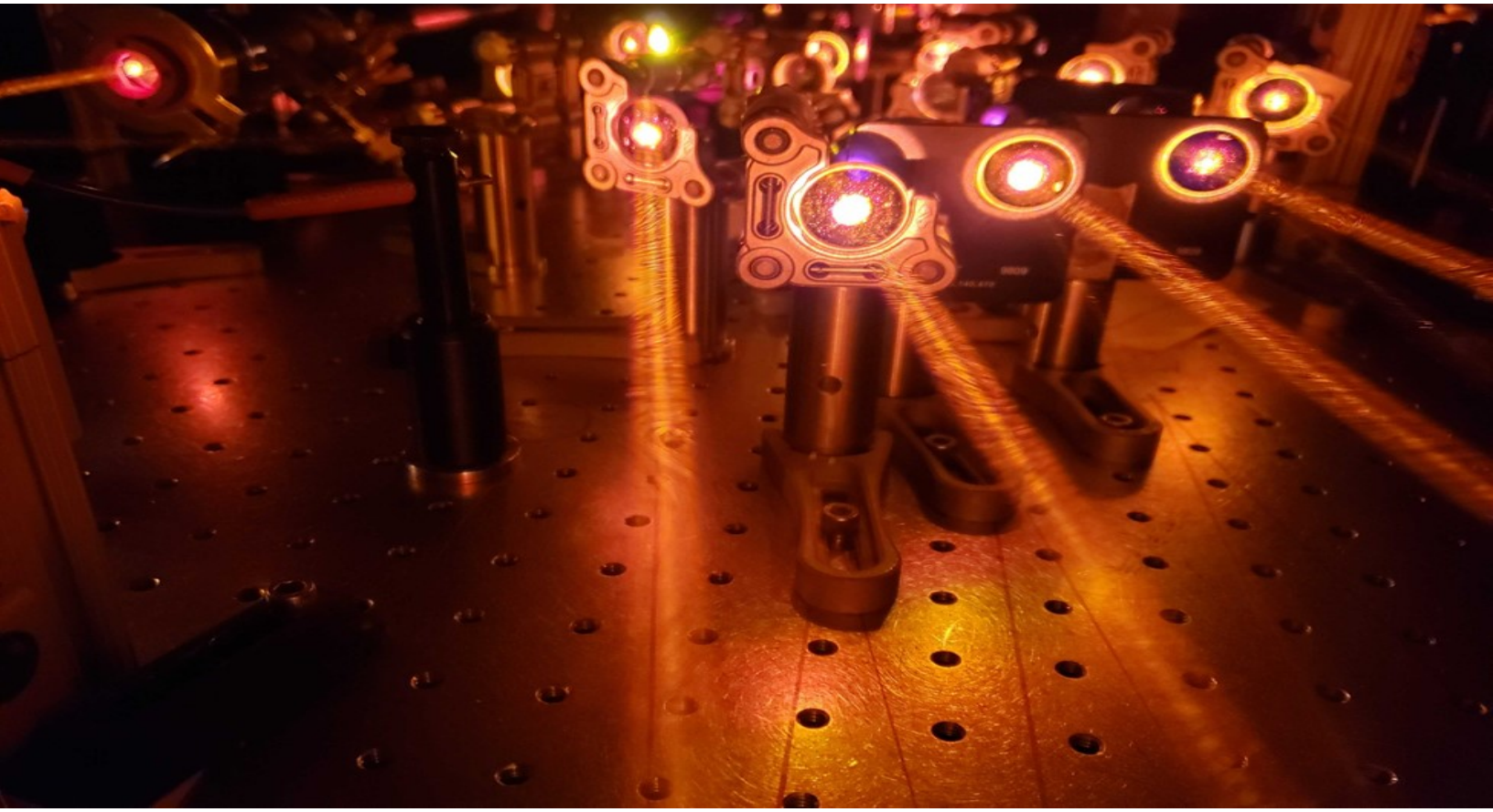
James McKone, PhD
University of Pittsburgh

Sarah King, PhD
University of Chicago
"Developing new methods for probing ultrafast dynamics of buried interfaces"

Yue Wang, PhD
University of California, Merced

Maxwell Robb, PhD
California Institute of Technology
"A universal molecular design platform for mechanically triggered release"

BECKMAN
YOUNG
INVESTIGATORS
1991



***Above**: AOB Postdoctoral Fellow James Gaynor's research in the Attosecond Atomic and Molecular Dynamics Laboratory at UC Berkeley uses a neon-filled hollow-core fiber compressor (pictured) to generate laser pulses covering 500-1000 nm with sub-5 femtosecond pulse durations. Image credit: Dr. James D. Gaynor and Dr. Ashley P. Fidler*

III. Arnold O. Beckman Postdoctoral Fellows

The Arnold O. Beckman Postdoctoral Fellows Award Program supports first and second year postdoctoral fellows at research institutions who are judged to have the highest potential for success in a career in chemistry, and who will become the next generation of leaders and innovators in science, engineering, and technology.

The program awards $180,000 over two years for salary, fringe benefits, and research expenditures; instrumentation fellowships will receive additional one-time $100,000 for material/development costs.

2020 Postdoc Program Stats:

55 Applicants

13 Researchers Selected for Awards

7 Institutions Represented

$14 Million in Funding for '17-'20 Awardees

POSTDOC

2020 Arnold O. Beckman Postdoctoral Fellows

AmyMarie Bartholomew, PhD
Columbia University

Joseph Derosa, PhD
California Institute of Technology

Myles Drance, PhD
Massachusetts Institute of Technology

James Gaynor, PhD
University of California, Berkeley
"Watching Excited State Protons Move in Real Time"

Megan Jackson, PhD
University of California, Berkeley

Gavin Kiel, PhD
Massachusetts Institute of Technology

Forrest Laskowski, PhD
California Institute of Technology

Charles Markus, PhD
California Institute of Technology

Matthew Nichols, PhD
Harvard University

Zachary Sherman, PhD
University of Texas, Austin

James Utterback, PhD
University of California, Berkeley

Stephen von Kugelgen, PhD
Northwestern University

Ren Wiscons, PhD
Columbia University
"Conjugated Helical Molecules as Chiral Quantum Materials"

BECKMAN
POSTDOCTORAL
FELLOWS
2015

***Above**: 2018 Beckman Scholar Karina Targos, BA, creates a web-like material made of cubic siloxanes monomers decorated with an aryl and ester functional group on each corner, an example using organic chemistry and catalysts to make new functionalized nanomaterials.*

IV. Beckman Scholars Program

The Beckman Scholars Program provides an in-depth, sustained research experience for exceptional undergraduate students in chemistry, biological sciences, or interdisciplinary combinations thereof. The program's award of $26,000 for a student and mentor team over 15 continuous months of research, in conjunction with the Annual Beckman Symposium, offers an academically stimulating and unique educational experience.

The award spans three years and four to six student/mentor pairs are named per institution; applications by invitation only.

BSP National Recognition in 2020:

2020 Goldwater Scholars: Chris Bragança, Shaoni Dasgupta, Hope Kirby, Angelica Lang, Vennela Mannava, Cody Martin, Jamison Takashima, Jacob Watts, and Anneka Williams

2020 Astronaut Scholars: Angelica Lang, Cody Martin, and Jonah Stiel

2020 BSP Program Stats:

12 Institutions Selected for 2020 Awards

62 Scholar/Mentor Teams began their Research Projects

$1.5+ Million in Funding for '18-'20 Awardees

BSP

2020 Beckman Scholars

Abreanne Andlinger
West Virginia University

Jordan Aucoin
Amherst College

Cristina Baker
Georgia Institute of Technology

Allison Baker
Texas A&M University

Anton Barybin
University of Kansas

Camaryn Bennett
Miami University
"Transesterification of Lipase"

Amanda Birt
Union College

Katharine Bowers
Tufts University

Madison Britting
University of Connecticut

Kelsie Britton
West Virginia University

Luke Broughton
Clemson University

Henry Cardwell
College of William & Mary

Emily Chapa
Texas A&M University

Megan Coolahan
Haverford College

Lauren Davis
Clemson University

Nicholas Dulock
Boston University

Elliott Einstein
University of California, Irvine

2020 Awardee Institutions

Bowdoin College
Carnegie Mellon University
James Madison University
Miami University
Pomona College
Smith College
Tufts University
University of California, Irvine
University of Colorado, Boulder
University of Richmond
University of Utah
West Virginia University

BECKMAN SCHOLARS PROGRAM 1998

BSP

2020 Beckman Scholars—continued

Christine Fasana
Furman University

Benjamin Fefferman
University of Chicago

Joanna Fowler
Haverford College

Jessica Freed
Boston College
"A Hybrid Approach to Phage Engineering Towards Targeted Treatment of Bacterial Infections"

Sasha Gill-Ljunghammer
University of California, Los Angeles

Samantha Grecco
Pennsylvania State University

Elora Greiner
Smith College

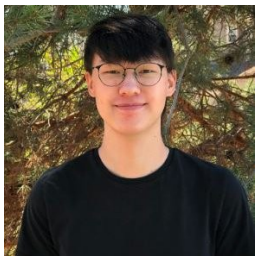
Adriana Gutierrez Ramirez
Santa Clara University

Hunter Hansen
Whitman College

James He
University of Connecticut

Grace Heiting
Union College

Ashley Hirt
University of Virginia



Evan Holbrook
University of Colorado, Boulder
"The Identification, Characterization, and Behavioral and Immunological Screening of Novel Mycobacteria"

Emily Hughes
University of Kansas

Isabel Johnson
Calvin University

Ramona Johnson
Case Western Reserve University

Samuel Khasnavis
Pomona College

Hope Kirby
Miami University

Sakin Kirti
Case Western Reserve University

Allen Knepper
Furman University

BECKMAN SCHOLARS PROGRAM 1998

BSP

2020 Beckman Scholars—continued

Leah Knoor
Calvin University

Andrew Kubaney
Carnegie Mellon University

Juliet Lee
Barnard College

Justin Lyon
University of Idaho

Anjali McNeil
Pennsylvania State University

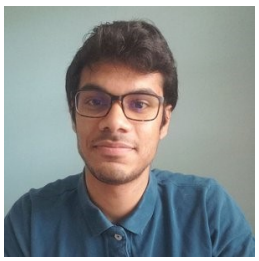
Anna McTigue
University of Colorado, Boulder

Colin Miller
Colgate University

Anneke Moeller
San Francisco State University

Hieu Nguyen
University of California, Los Angeles

Nicholas Pancheri
University of Idaho



Venkata Patchigolla
University of Connecticut
"Engineering New Assays to Reveal the Mechanisms of Centromere Function"

Logan Porrazzo
University of Arizona

Isabel Romov
James Madison University

Eric Salisbury
Hope College

Michelle Schroeder
Georgia Institute of Technology

Kevin Schult
Tufts University

Sonia Seghal
University of Utah

Saman Tabatabaee
University of Chicago

Hayden Tharpe
Clemson University

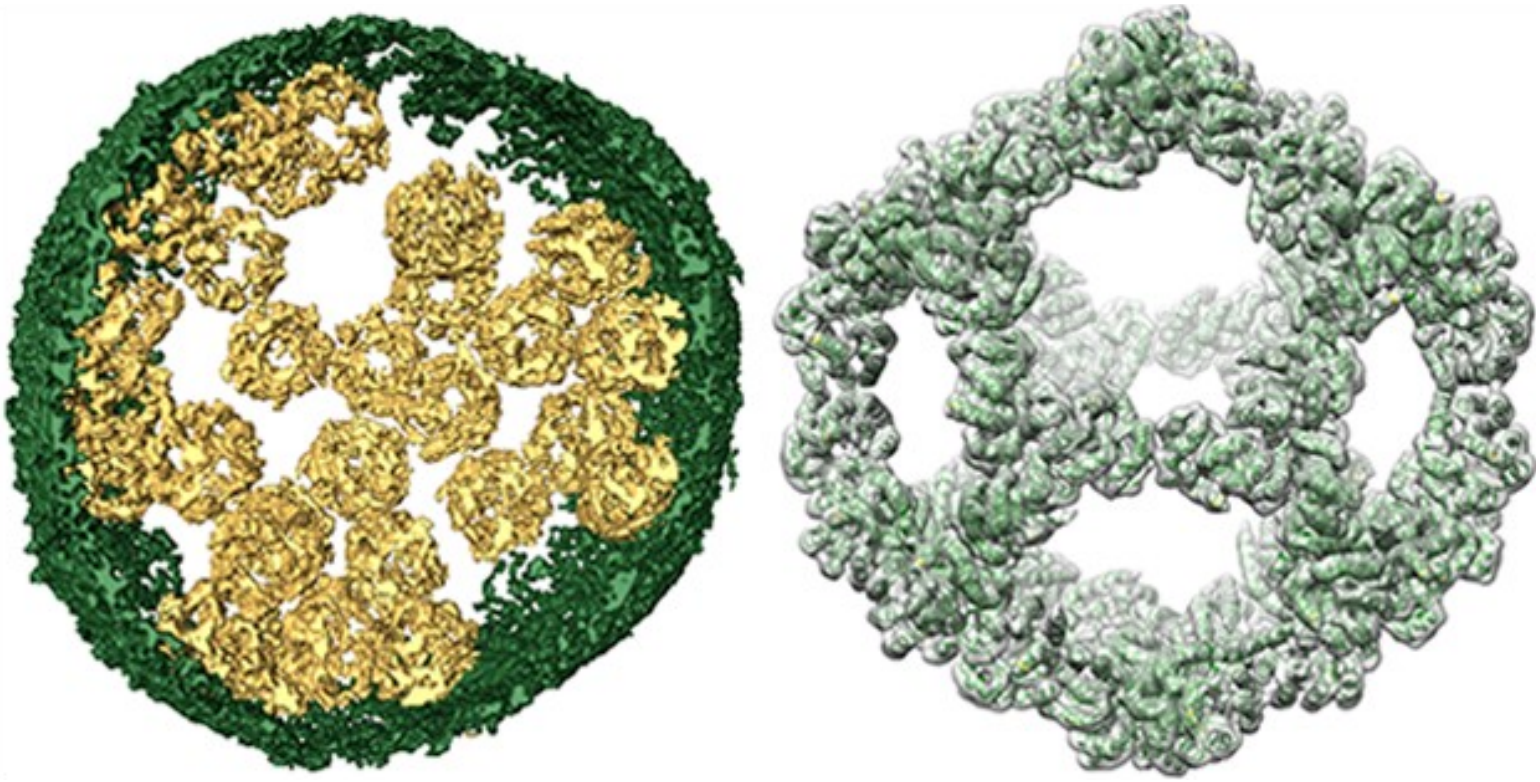
Julia Vidlak
University of Richmond

Rory Weeks
University of Utah

Anneka Williams
Bowdoin College

Morgan Wynkoop
Colgate University

BECKMAN SCHOLARS PROGRAM 1998



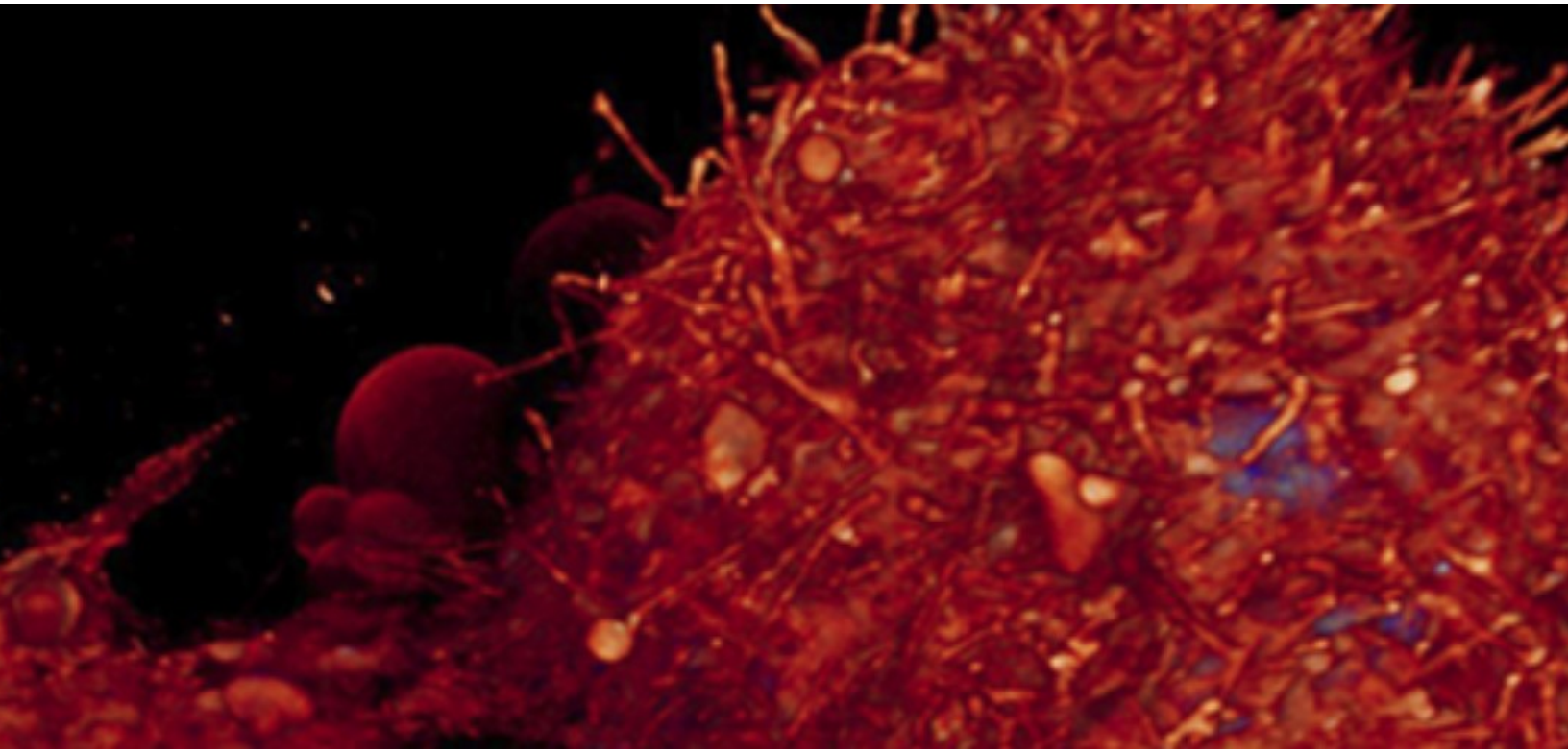
***Above**: Isosurface model of a vesicle filled with nanocages (left) and a cryo-EM reconstruction of a nanocage with the computational design model (green ribbon) fitted in (right). Image credit: Sundquist Lab, Univ. of Utah*

V. Beckman Center for Cryo-EM

Advances in instrumentation and methods have revolutionized applications of cryogenic electron microscopy (Cryo-EM) to determine atomic structures of biological samples that are currently beyond the reach of other structural biology methods. However, the expense of the instrumentation is a major roadblock to increasing access to this technology. In 2016, the Foundation provided five grants of $2.5M each that could be used for purchase costs of new Cryo-EM instrumentation, support for a junior faculty hire in structural biology, and operational expenses.

2020 Program Highlight:

David Veesler, PhD (Univ. of Washington) published in *Cell*: "Elicitation of Potent Neutralizing Antibody Responses by Designed Protein Nanoparticle Vaccines for SARS-CoV-2." Veesler and his team successfully tested a new COVID-19 vaccine based on the structures determined at the University of Washington Beckman Cryo-EM Center.



***Above**: Image of cellular membrane acquired by combining lattice light sheet and point accumulation for imaging of nanoscale topography (PAINT) microscopy with new fluorescent probes. Image credit: 2019 BYI Wesley Legant in collaboration with Lavis and Betzig labs*

VI. Beckman Center for Advanced Light-Sheet Microscopy and Data Science

November 2019, The Beckman Foundation launched the instrumentation grant for Advanced Light-Sheet Microscopy and Data Science to provide support of up to $1.2 million per site for the acquisition of instrumentation, cost of proposed research programs, and establishing robust teams for data science collaboration.

Investing in this instrumentation underscores the Foundation's mission of supporting research breakthroughs in chemistry and the life sciences.

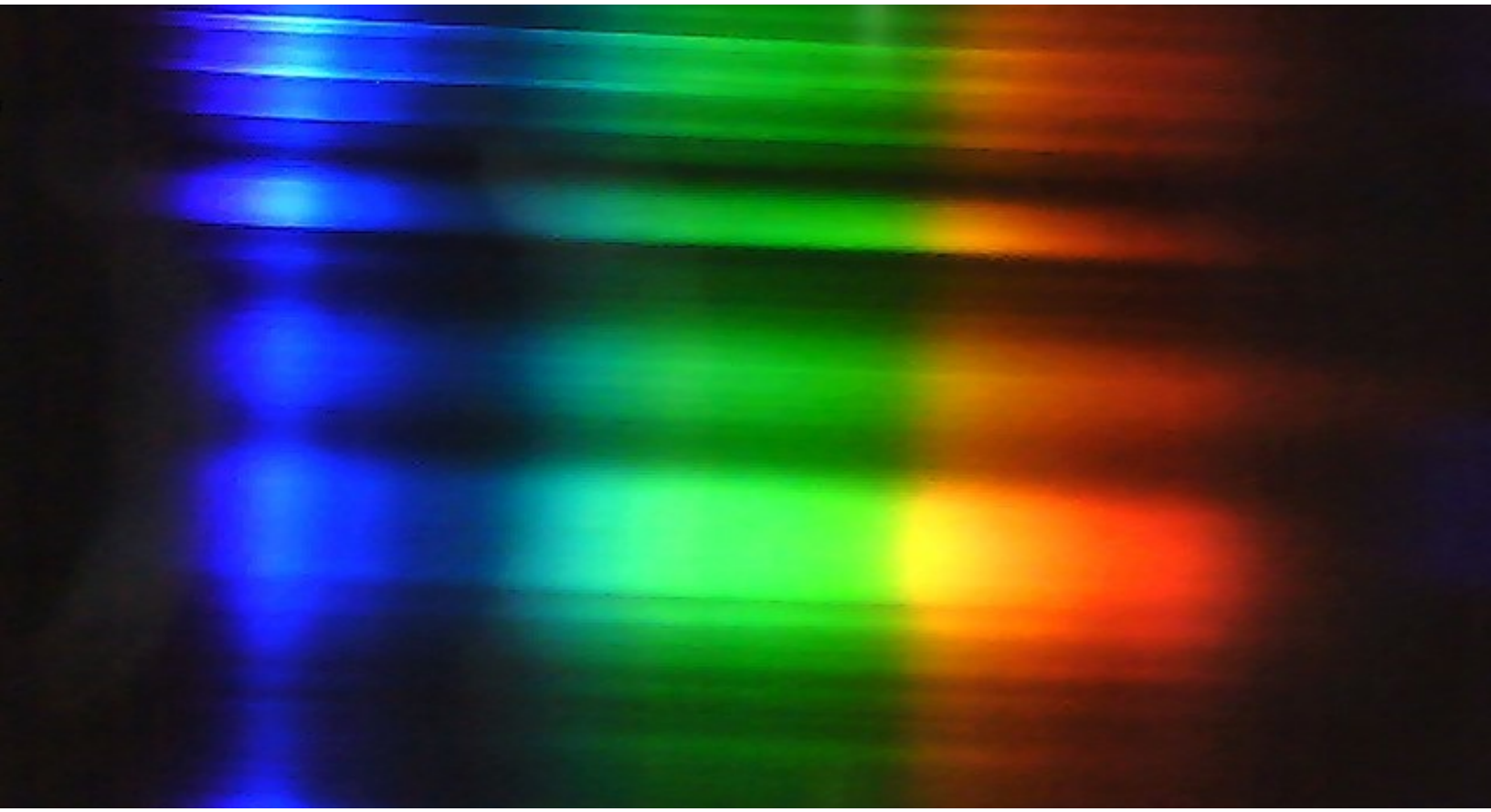
Program Timeline:

March 6, 2020
Pre-proposals due

June 10, 2020
Request for full proposals

August 28, 2020
Full proposals due

February 22, 2021
Awardees to be announced



***Above**: Color-band light spectrum of black tea captured with a bent diffraction grating. Image credit: Elizabeth Koppe*

VII. OC Beckman Legacy Awardees

The Arnold and Mabel Beckman Foundation is proud to announce the completion of the first year of the Orange County Beckman Legacy Award.

High school seniors worked with a science teacher mentor at their school to complete a spectrophotometer build, inspired by the revolutionary tools of Dr. Arnold O. Beckman, conduct lab work, create their own unique experiment, and answer reflection questions. Submitted projects were evaluated by the Foundation using a panel of outside experts.

2020 Program Highlights:

- The 2020 program was completed in-person, before distance learning.
- Applications for review were blinded, a first for the Foundation.
- Inaugural awardees received college scholarships from $8,000 to $16,000.

2020 Legacy Program Stats:

12 Applicants

5 Students Selected for Awards

3 High Schools Represented

$56,000 in Funding for ‘20 Awardees

LEGACY

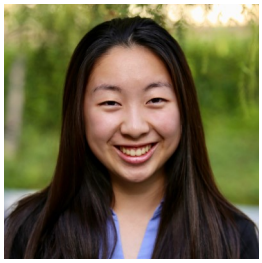
2020 Orange County Beckman Legacy Awardees

Erica Hsueh, First Place
Northwood High School, currently attending Princeton University

Yeast activity of "young" vs. "mature" levain

Sasha Anand, Third Place
Northwood High School, currently attending University of California, Los Angeles

Degradation of betalains



Catherine Hu, Second Place
Northwood High School, currently attending University of California, Los Angeles

Comparing synthetic and natural colorants

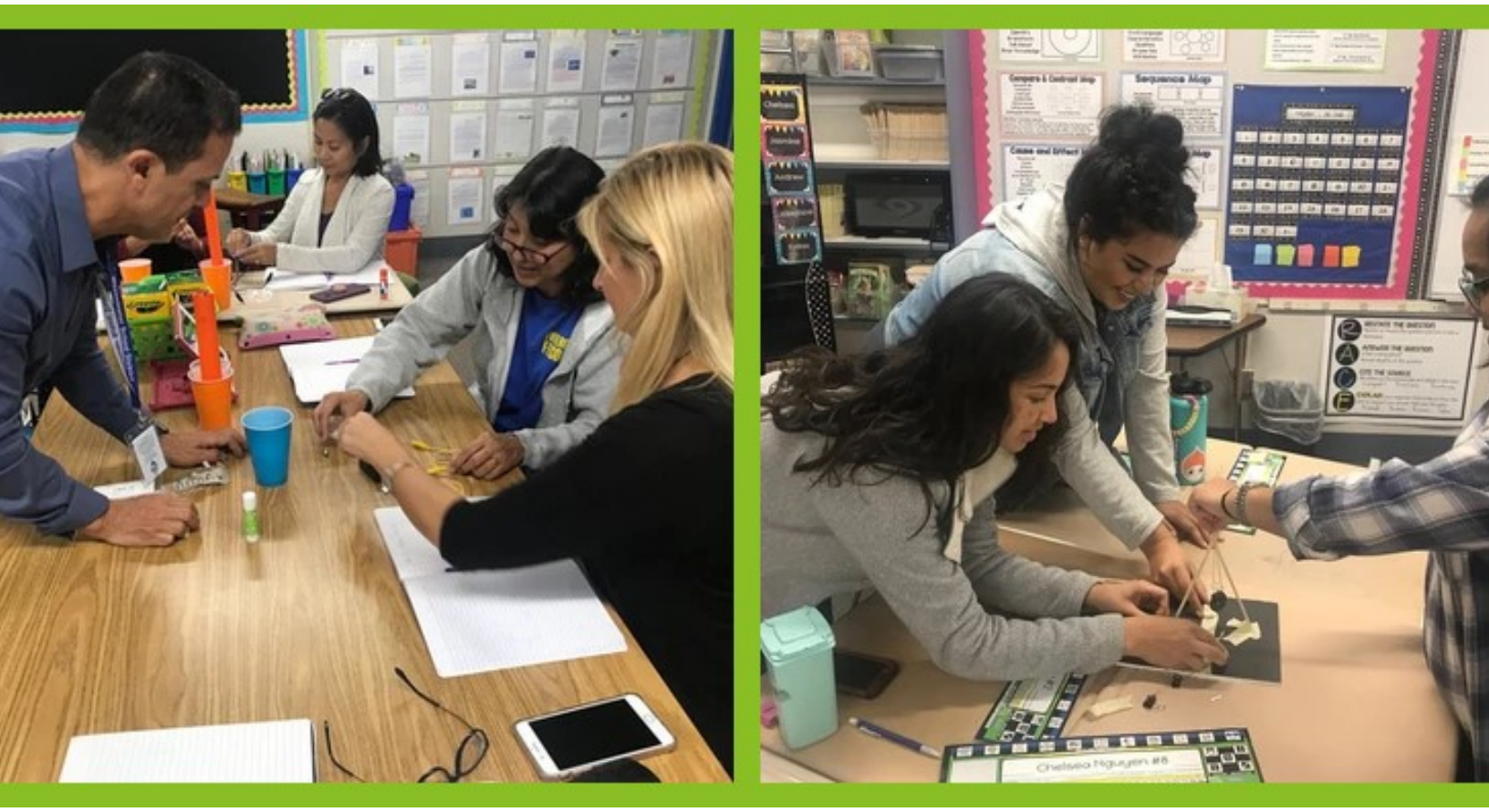
William Huang, Third Place
University High School, currently attending University of California, Los Angeles

Sugar vs. plant fertilizer for microalgae growth

Raj Kumar, Second Place
Northwood High School, currently attending University of California, Los Angeles

Measuring beta-carotene

BECKMAN
LEGACY
PROGRAM
2020



***Above**: Kids@Science offered hands-on science investigations to students and teachers using AMBF-funded training kits and supplies. For 2020, trainings went online due to COVID-19. Image: Kidsatscience.org.*

VIII. Local Community Support

The Foundation is proud to support innovative STEM and STEAM activities in the local community we call home, including:

Beckman Arts & Science Family Day
Segerstrom Center for the Arts

Chapman University Foundation

Discovery Cube

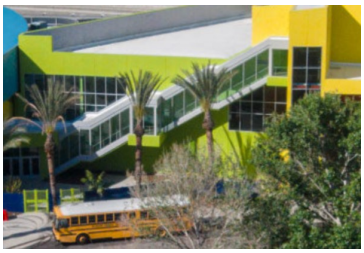


Image: Discoverycube.org

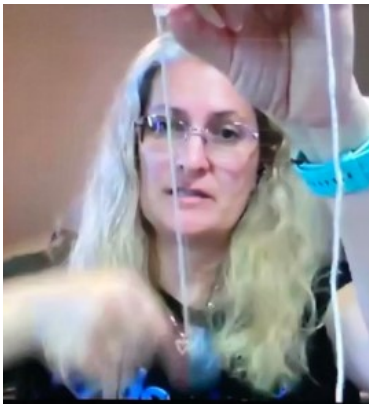
Image: Ipsf.net

Irvine Public Schools Foundation
Engineering Pathways program

Kids@Science
STEM teacher training initiative and science kits

OC Science and Engineering Fair
Special awards and support

Right column (top down): Winners from the OC Science and Engineering Fair; the event went online for 2020. Image: ocsef.org. Mrs. Taylor gave an online STEM training using kits funded by AMBF. Both photos of Mrs. Taylor and magnetic trains posted by @KidsatScience2. Lobby exhibit celebrating the life and inventions of Dr. Beckman at Chapman University's Keck Center.; rendering by AC Martin.



Left column (top down): Attendees at the Beckman Arts & Science Family Day met DINO and learned how to engineer more efficient cars. Both photos were taken by Doug Gifford in 2018. Due to COVID-19, the event for 2020 was postponed.

***Above**: A look at the virtual lobby that greeted Symposium guests as they entered the online event.*

IX. Annual Beckman Symposium

The annual Beckman Symposium brings together the nearly 300 grantees from our programs and Foundation leadership, including members of the Board of Directors, Scientific Advisory Council, Executive Committees, and Beckman Institutes.

The 3-day event* features researchers from varied backgrounds, career stages, disciplines and institutions sharing their latest research findings in the form of oral and poster presentations, networking during group meals, and participating in career guidance workshops led by invited experts.

After the scientific sessions conclude, the participants typically relax with colleagues and enjoy a variety of competitive lawn games.

2020 Beckman Symposium

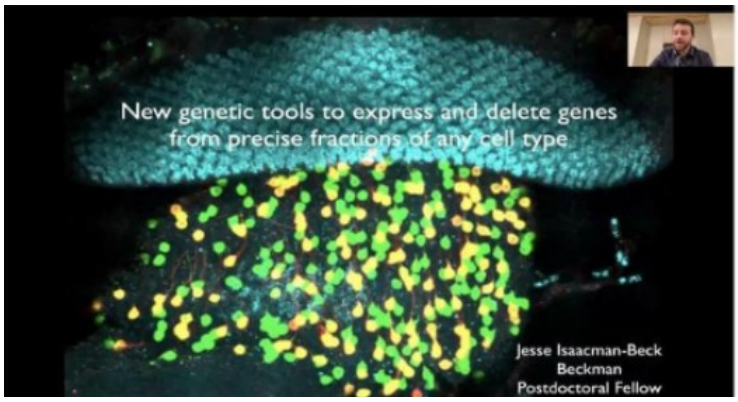
*To protect the health and safety of all guests during COVID-19, the 2020 Beckman Symposium was held as a virtual event that featured:

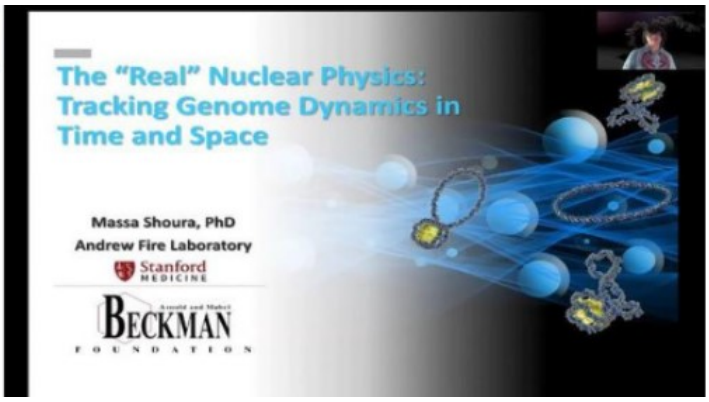
8 Live Sessions

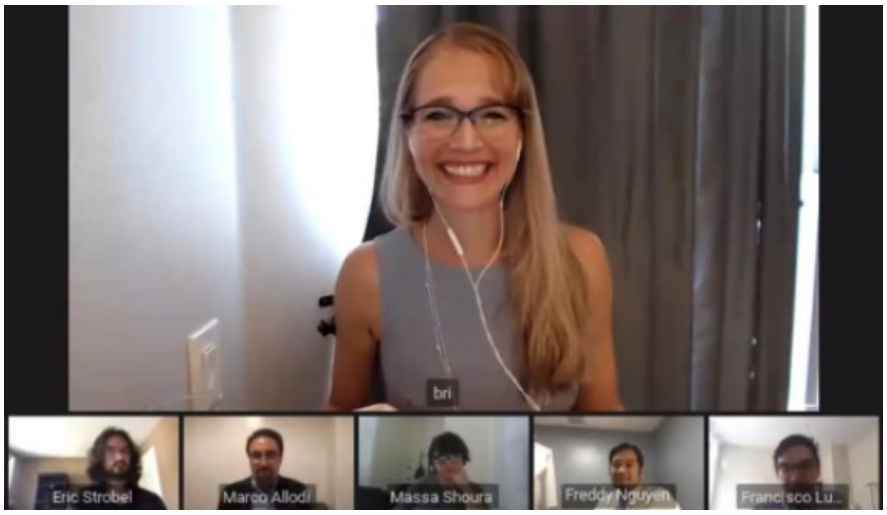
22 On-demand Presentations

115 Research Posters

4 Zoom Activities







First row (from top): Jesse Isaacman-Beck, PhD and Massa Shoura, PhD presented research during Bio-Chem talks.

Second row: Bri McWhorter, MA lead AOB Postdocs in a Scientific Storytelling Workshop ahead of their Beckman Briefings 3-minute presentations. Craig Gatto, PhD received an Appreciation Award for his service to the Beckman Scholars Program.

Third row: Shameema Sikder, MD discussed her career in medicine.

Fourth row: Mike Morrison, MA encouraged guests to rethink their research poster design.

__Above__: Groundbreaking ceremony for the Beckman Institute at University of Illinois, Urbana-Champaign.

X. Beckman Institutes and Centers

In 1978, Dr. and Mrs. Beckman began their philanthropic giving by founding five basic science research institutes and centers at leading universities that had been influential in their own lives. Each of the research Institutes and Centers have a mission to promote novel interdisciplinary science programs, and provide access to leading instrumentation facilities. In addition to the research Institutes, Dr. and Mrs. Beckman also established the Beckman Center of the National Academies as the west coast headquarters for National Academy activities and scientific conferences.

The Beckman Foundation continues the commitment to these Institutes and Centers through an annual Director's Fund grant, which may be used at the sole discretion of the Directors.

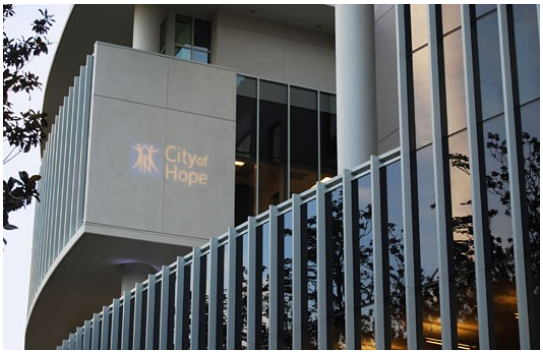
Dr. Thomas Milner, Director
Beckman Laser Institute & Medical Clinic
at University of California, Irvine

Beckman Research Institute at Caltech

Director: Dr. Marianne Bronner
Pasadena, CA

Beckman Institute for Advanced Science and Technology at the University of Illinois, Urbana-Champaign

Director: Dr. Jeffrey Moore
Urbana, IL



Beckman Research Institute at City of Hope

Director: Dr. Steven Rosen
Duarte, CA

Beckman Laser Institute & Medical Clinic at University of California, Irvine

Director: Dr. Matthew Brenner
Irvine, CA

Beckman Center for Molecular & Genetic Medicine at Stanford University

Director: Dr. Lucy Shapiro
Stanford, CA

***Above**: 2015 Beckman Symposium Panel, Scientific Careers in the Business World.*

XI. Beckman Speaker & Conference Support

The Arnold and Mabel Beckman Foundation Speaker and Conference Support Program is open to all current Foundation grant awardees, specifically from the BSP, AOB Postdoc, BYI, or Beckman-Argyros Vision Research programs. Current Beckman awardees organizing or hosting a seminar of conference at their institution can invite a member of the Beckman Family to be a speaker and submit an application to this program for funding up to $3,000 per request, in support of, but not limited to: Speaker travel, room rental fees, reception costs, food, beverages, printed materials, etc.

The Foundation chooses a limited number of Speaker and Conference events based on their relevance to the mission of the program and Foundation as a whole, campus, scientific and community impact, and the scope of appeal of the event.

In 2020, Speaker and Conference support was provided to:

Prof. Elizabeth Gavis, PhD/MD
Princeton University

Mr. Patrick McGeoghegan
Boston College

***Above**: 2016 BYI Jing-Ke Weng investigates harnessing the light production pathway of fireflies for other imaging and power applications.*

XII. Financial Report

In accordance with its mission statement, the Foundation remains focused on finding operational efficiencies and technology improvements without adding long-term costs. To this end and in response to COVID-19, the Foundation successfully converted its operations to remote, conducting staff and Symposium activities virtually. The economic impact of these changes was a $489 thousand savings in administrative and Symposium spending. The Foundation then distributed these savings in the form of additional grants to Beckman Institutes/Centers and local community support for emergency medical equipment.

Fiscal Year Financial Highlights:
(Sept. ‘19-Aug. ‘20)

Total expenses and disbursements:
$30,927,000

After our expenses, investment income, and accruals, the **increase in net assets was $22,900,000.**

Diversity, Equity and Inclusion Statement

From the Foundation's Executive Director and Staff

At the Arnold and Mabel Beckman Foundation, we acknowledge, appreciate and support the fundamental roles that diversity, equity and inclusion have in scientific progress and innovation. We are infusing these values throughout our internal culture, systems, and practices. We seek applicants from all backgrounds in our programs and strive to ensure a fair and equitable process for selection of awardees, recognizing that excellent science is not the exclusive endeavor of one group of people, but of all people, working collaboratively to accomplish unique solutions to challenging scientific questions.

Our founders challenged us that "there is no satisfactory substitute for excellence" and "absolute integrity in all things" - not just in the research laboratory, but in life. Strengthening diversity, equity, and inclusion across the Foundation is an ongoing process and we will continue to evaluate our work and processes to identify areas where we can evolve and grow to best support the community we serve.

What We Are Doing

- Using technology to hide applicant information pertaining to name, gender, sexual identity, ethnicity, citizenship status and institutional information from reviewers to help avoid implicit and explicit bias during the review process
- Tracking the effectiveness of our award processes relative to diversity and inclusion to measure where we can focus our efforts and ensure that the needs of all award winners are considered
- Communicating award opportunities broadly to reach underrepresented groups
- Established Code of Conduct for all awardees for research integrity and inclusive interactions
- Supporting open dialogue, safe and healthy communication practices

Where We Are Going

- Conducting annual reviews of our diversity, equity and inclusion policies, practices and procedures, starting in the fall of 2020
- Developing a diverse Board of Directors, leadership and staff within the Foundation
- Completing annual harassment prevention, anti-oppression, and anti-bias training for all staff

Originally published online June 23, 2020
https://www.beckman-foundation.org/about-foundation/diversity-equity-and-inclusion/

How We've Adapted to COVID-19

A Few Examples from our Programs

COVID-19 has changed all of our lives in dramatic ways, but also presented some opportunities to rethink our expectations and adapt to changing circumstances. Below are just some of the ways we have adjusted to the demands of the continued shut-downs and shifts in schedules to both help our awardees succeed and continue our operations uninterrupted.

Beckman Young Investigators

In discussing the impacts of COVID for our award winners, one item that surfaced from BYIs with small children was that the shut-down of school and daycare was significantly interfering with their ability to continue their research, even when their laboratories reopened. These junior faculty were balancing new demands at home during a critical time to show new results for tenure and future funding opportunities. One BYI offered a creative solution - could the unused travel funds from the past and current year grants be reprogrammed to help with child care expenses to allow the BYIs the time they needed in lab? We agreed, and extended the allowance to elder care as well. For the 2020-2021 program year only, the BYIs could reprogram about 3% of their total grant to help with these expenses in lieu of travel.

Arnold O. Beckman Postdoctoral Fellows

One immediate consequence of the COVID shut-downs was the suspension, and in some cases cancellation, for new faculty searches. The uncertainty about future funding within departments is certainly understandable for why these suspensions were necessary, but the impact on job-searchers is devastating. Particularly hard hit were several of our 2017 Arnold O. Beckman Postdoctoral Fellowships who were approaching the end of their fellowship terms during this crisis. We are grateful to our Board of Directors for approving 6-month paid extensions of these fellowship terms to retain these talented young scientists through March 2021. We hope that these extensions help to bridge this challenging time!

Beckman Scholars

The initial wave of school closures in Spring 2020 hit our Scholars Program right in the thick of new scholar selections. What we heard from all directions was just the need for flexibility. Would we be open to delays in scholar selection? Yes. Would we be open to revised research plans? Yes. Would we be open to extensions of the grants in the following year if scholars couldn't start on time? Yes. We have been overwhelmed in the creativity and adaptability of the schools and students to keep this research experience not only running, but with meaningful experiences for the Scholars.

Our Foundation Operations

The Foundation has shifted operations to 100% telework, with lots of help from ZOOM! All staff are available as usual and we've adjusted to "having lunch" together via the computer. In addition, we embarked on our first ever Virtual Beckman Symposium - thank you to all who participated and made the event engaging and informative. While we hope that in-person meetings resume, it was great to see what we can accomplish with the new online meeting tools, and we have lots of suggestions for improvements if we're in a virtual format again next year.

Originally published online September 21, 2020
https://www.beckman-foundation.org/latest-news/how-weve-adapted-covid-19-few-examples-our-programs/

IN MEMORIAM

Remembering William "Bill" H. May, Chairman of the Board of Directors of the Arnold and Mabel Beckman Foundation, 1942-2020

With heavy hearts we share the news that our Chairman, Bill May, lost his battle with lung cancer. We send our deepest condolences to Bill's wife and partner of 50 years, Barbara May, his children, grandchildren, extended family, and those that were blessed to know him.

Bill grew up in the Baltimore, Maryland area. He received a bachelor's degree in mechanical engineering from Virginia Tech and a law degree from the University of Virginia School of Law. He served as a captain in the U.S. Air Force, and then moved to Southern California with his wife Barbara to pursue his law career. He joined Beckman Coulter in 1976 as a staff attorney with a specialty in patent law. Through Bill's distinguished career at Beckman Coulter, he advanced to hold the positions of Vice President, General Counsel, and Secretary. Bill joined the Arnold and Mabel Beckman Foundation Board of Directors in 2001 and was elected Chair in 2016.

Bill was passionate about service and he has been very active in supporting many organizations, including the Boys' Latin Preparatory School, Virginia Tech, the San Diego Zoological Society, the Santa Ana School District, and the Arnold and Mabel Beckman Foundation, among others. Bill was a wonderful leader who always sought out information and opinions from everyone to inform decisions. He made sure that we all kept a sense of humor and never passed up an opportunity to tell a joke. He helped everyone through challenges with laughter and compassion.

We were blessed to have his time and dedication to the mission of the Foundation, his stories about Dr. and Mrs. Beckman, and his unwavering optimism for the future. May God comfort and protect his loved ones as they mourn their loss. Bill was laid to rest at the Riverside National Cemetery as a veteran of the U.S. Air Force.