

**DR. ARNOLD O. BECKMAN'S**  
*rules for success*

1. There is no satisfactory substitute for excellence.
2. Absolute integrity in everything.
3. Everything in moderation, including moderation itself.
4. Hire the best people - then get out of their way.
5. Don't be afraid of making mistakes. If you're not making mistakes, you're probably not doing very much.
6. Acquire new knowledge and always ask why.
7. Don't take yourself too seriously.

# *The University of Utah – Beckman Scholars Program*

<https://science.utah.edu/students/student-research/beckman-scholars/>

**28 January 2021**

**Dr. Ming Hammond and Dr. Andrew G. Roberts**

**JANUARY 15, 2020 – THE COLLEGE OF SCIENCE AT THE UNIVERSITY OF UTAH IS PROUD TO BRING THE BECKMAN SCHOLARS PROGRAM, SUPPORTED BY THE ARNOLD AND MABEL BECKMAN FOUNDATION, BACK TO THE UNIVERSITY OF UTAH!**

***what is this opportunity?***

<https://www.beckman-foundation.org/about-foundation/arnold-and-mabel-beckman/>

*The Beckman Scholars Program is a 15-month mentored research experience for exceptional undergraduate students in chemistry, biological sciences, or interdisciplinary combinations thereof.*

*This generous institutional award, provided by the Arnold and Mabel Beckman Foundation to the University of Utah College of Science, spans three years (2020 – 2023), and will enable the funded support of six scholar–faculty mentor pairs. Each internally selected scholar will receive a \$21,000 research stipend to facilitate 15-months of mentored research (nine academic calendar months, two three-month summers), in addition to \$5,000 provided for the mentor-directed research.*

# *The University of Utah – Beckman Scholars Program*

<https://science.utah.edu/students/student-research/beckman-scholars/>

***what is this opportunity?***

<https://www.beckman-foundation.org/about-foundation/arnold-and-mabel-beckman/>



Supporting young scientists today · About the Foundation

**Arnold & Mabel Beckman**

# *The University of Utah – Beckman Scholars Program*

<https://science.utah.edu/students/student-research/beckman-scholars/>



Dr. Arnold O. Beckman, founder of Beckman Instruments, Inc., created devices that revolutionized the study and understanding of chemistry and human biology. Dr. Beckman often said, "There is no satisfactory substitute for excellence." This philosophy, combined with his personal integrity and love for science, guided his life and helped shape both his company and his highly decorated career.

# *The University of Utah – Beckman Scholars Program*

<https://science.utah.edu/students/student-research/beckman-scholars/>

## ***what is this opportunity?***

<https://www.beckman-foundation.org/about-foundation/arnold-and-mabel-beckman/>

The success of the Beckman Scholars Program will be measured by its impact on the College of Science as well as the individual Beckman Scholars. At an institutional level, a successfully executed program should result in increased applications for the undergraduate research programs throughout the College of Science.



# The University of Utah – Beckman Scholars Program

<https://science.utah.edu/students/student-research/beckman-scholars/>

An illustrative case for a desirable individual outcome is **Dr. Reshma Shetty**, BSP alumnae from the University of Utah (award year 2000), who performed research with Prof. Olivera in Biology. After publishing with Prof. Olivera, she obtained a Ph.D. in Bioengineering from MIT, and then went on to co-found Ginkgo Bioworks, Inc., a synthetic biology start-up company.

## RESEARCH ARTICLE

### **$\gamma$ -Glutamyl carboxylation: An extracellular posttranslational modification that antedates the divergence of molluscs, arthropods, and chordates**

Pradip K. Bandyopadhyay, James E. Garrett, **Reshma P. Shetty**, Tyler Keate, Craig S. Walker, and Baldomero M. Olivera

PNAS February 5, 2002 99 (3) 1264-1269; <https://doi.org/10.1073/pnas.022637099>

Communicated by John R. Roth, University of Utah, Salt Lake City, UT (received for review September 20, 2001)



# The University of Utah – Beckman Scholars Program

<https://science.utah.edu/students/student-research/beckman-scholars/>

## current Beckman Scholars at the U, 2020 – 2021

(read more here: <https://science.utah.edu/beckman/>):



Sonia Sehgal

Mentor: Martin  
Horvath



Horvath

Structural Biology  
& Biochemistry



Rory Weeks

Mentor: Luisa  
Whittaker-Brooks



Whittaker-Brooks

Organic-Inorganic  
Hybrid Electronics

**Sonia Sehgal, PI: Dr. Martin Horvath**

***Finding the role of biological probes on MUTYH activity***

**Rory Weeks, PI: Dr. Luisa Whittaker–Brooks**

***Mechanistic understanding of a model solid electrolyte/electrode interface for advancing electrochemical energy storage application***

# *The University of Utah – Beckman Scholars Program*

<https://science.utah.edu/students/student-research/beckman-scholars/>

**28 January 2021**

**eligibility:** Prospective scholars must apply with one of fifteen internally selected UoU Beckman Scholars Program mentors. For participating faculty research mentors, see **Figure 1** (next slide)

*In addition, a prospective scholar must:*

1. Be a full-time student and a declared science major;
2. Be a U.S. citizen or permanent resident;
3. Be a freshman, sophomore, or junior;
4. Commit to an independent research project that will last two summer semesters and the the entire academic year in between.

**application details:** *Please attend the 2021 information session. Prof. Ming Hammond and Prof. Andrew Roberts will provide a UoU Beckman Scholars Program overview and detail the application process. See **Table 1** (next slides) for details and deadlines on the application and selection process.*





# The University of Utah – Beckman Scholars Program

## **program faculty mentors:**

fifteen internally selected UoU Beckman Scholars Program mentors (**Figure 1**)

 *Biological Sciences*

 *Chemistry*

 *Physics & Astronomy*



**Armentrout**  
*Analytical &  
Physical Chemistry*



**Burrows**  
*Organic &  
Biological Chemistry*



**Gagnon**  
*Developmental  
Genetics*



**Hammond**  
*Biochemistry &  
Synthetic Biology*



**Hollien**  
*Cell & Molecular  
Biology*



**Horvath**  
*Structural Biology  
& Biochemistry*



**Jorgensen**  
*Biochemistry &  
Instrumentation*



**Looper**  
*Organic Synthesis &  
Medicinal Chemistry*



**Louie**  
*Catalysis &  
Synthesis*



**Minteer**  
*Analytical Chemistry  
& Biochemistry*



**Molinero**  
*Physical  
Chemistry*



**Roberts**  
*Organic & Chemical  
Protein Synthesis*



**Sigman**  
*Organic Synthesis  
& Catalysis*



**Vershinin**  
*Single Molecule  
Biophysics & Soft Matter*



**Whittaker-Brooks**  
*Organic-Inorganic  
Hybrid Electronics*

# The University of Utah – Beckman Scholars Program

**additional details about the Arnold and Mabel Beckman Foundation and the Beckman Scholars Program can be found here:**

[The Arnold and Mabel Beckman Foundation Mission Philosophy](#)

[The Beckman Scholars Program](#)

**Table 1.** Activity timeline for UoU Beckman Scholar recruitment and selection

<b>Date</b>	<b>activity (2020 – 2023, recurring annually)</b>
January 28, 2021	information session (today) and solicitation
March 31, 2021	<b>application deadline:</b> March 31, 2021 at 6:00 p.m. MST, see <a href="#">application guidelines and submission information</a>
mid-April	finalists selected for interviews
late April	finalist interviews scheduled/conducted
May 1, 2021	<b>scholars selected</b>
May 15, 2021	report submitted to Beckman Foundation
June 2021	<b>BSP start for 2021 – 2022 period</b>

# *The University of Utah – Beckman Scholars Program*

[application guidelines and submission information](#)

<https://science.utah.edu/uncategorized/beckman-application/>

**application deadline: March 31, 2021, at 6pm MST.**

**required from applicant**

**application form:** <https://forms.gle/nj9Xjwa4r35JZKbp9>

Please email [roberts@chem.utah.edu](mailto:roberts@chem.utah.edu) with any questions.

**research interest and eligibility form:** The form will ask for declared major, U.S. citizen or permanent resident status, selected BSP faculty mentor from the list of approved mentors, research area, and career goal statement. Students should also be ready to commit to a research project that will last two summer semesters and the entire academic year in between. As such, applicants currently need to be a freshman, sophomore, or junior.

**in addition:** The applicant must upload the following information in a single combined PDF using the filename [last name of applicant]\_BSP2021 using the Google Form.

*e.g., roberts\_BSP2021.pdf*

# The University of Utah – Beckman Scholars Program

**Application deadline: March 31, 2021, at 6pm MST.**

**in addition:** The applicant must upload the following information in a single combined PDF using the filename [last name of applicant]\_BSP2021 using the Google Form.

*e.g., roberts\_BSP2021.pdf*

- **curriculum vitae** (2 pages maximum): The CV should include research and work experiences, awards, extracurricular activities.
- **unofficial copy of applicant's academic transcript:** Academic information must include full-time student status, coursework.
- **research proposal:** NSF fellowship format research proposal (2 pages).
- **short essay:** Students will be given “The Legacy of Arnold O. Beckman” (page 9 of Terms and Conditions) to read and asked to write a 250-word essay explaining which one of Dr. Beckman's rules they would embody as a UoU Beckman Scholar.

## **required from mentor**

**letter(s) of support:** One letter is required from a person that can assess the student's potential for independent research (research mentor); an additional letter is optional. Mentors should submit the letter(s) of support as a PDF to [uobeckmanscholarsprogram@gmail.com](mailto:uobeckmanscholarsprogram@gmail.com)

# *The University of Utah – Beckman Scholars Program*

**Application deadline: March 31, 2021, at 6pm MST.**

**in addition:** The applicant must upload the following information in a single combined PDF using the filename [last name of applicant]\_BSP2021 using the Google Form.

- **research proposal:** NSF fellowship format research proposal (2 pages).

**format:** <https://www.nsf.gov/pubs/2019/nsf19081/nsf19081.jsp#q50>

The statements must be written using standard 8.5" x 11" page size, 12-point, Times New Roman font, 1" margins on all sides, and must be single-spaced or greater. References, footnotes, and figure captions must be no less than 10-point Times New Roman. Failure to follow any of these guidelines will result in an application being returned without review.

**resource:** [NSF GRFP examples](#)

- **short essay:** Students will be given “The Legacy of Arnold O. Beckman” (page 9 of Terms and Conditions) to read and asked to write a 250-word essay explaining which one of Dr. Beckman’s rules they would embody as a UoU Beckman Scholar and explain your short (1-2 years) and long-term (10 years) career goals.

<https://www.beckman-foundation.org/about-foundation/7-rules-success/>



# The University of Utah – Beckman Scholars Program

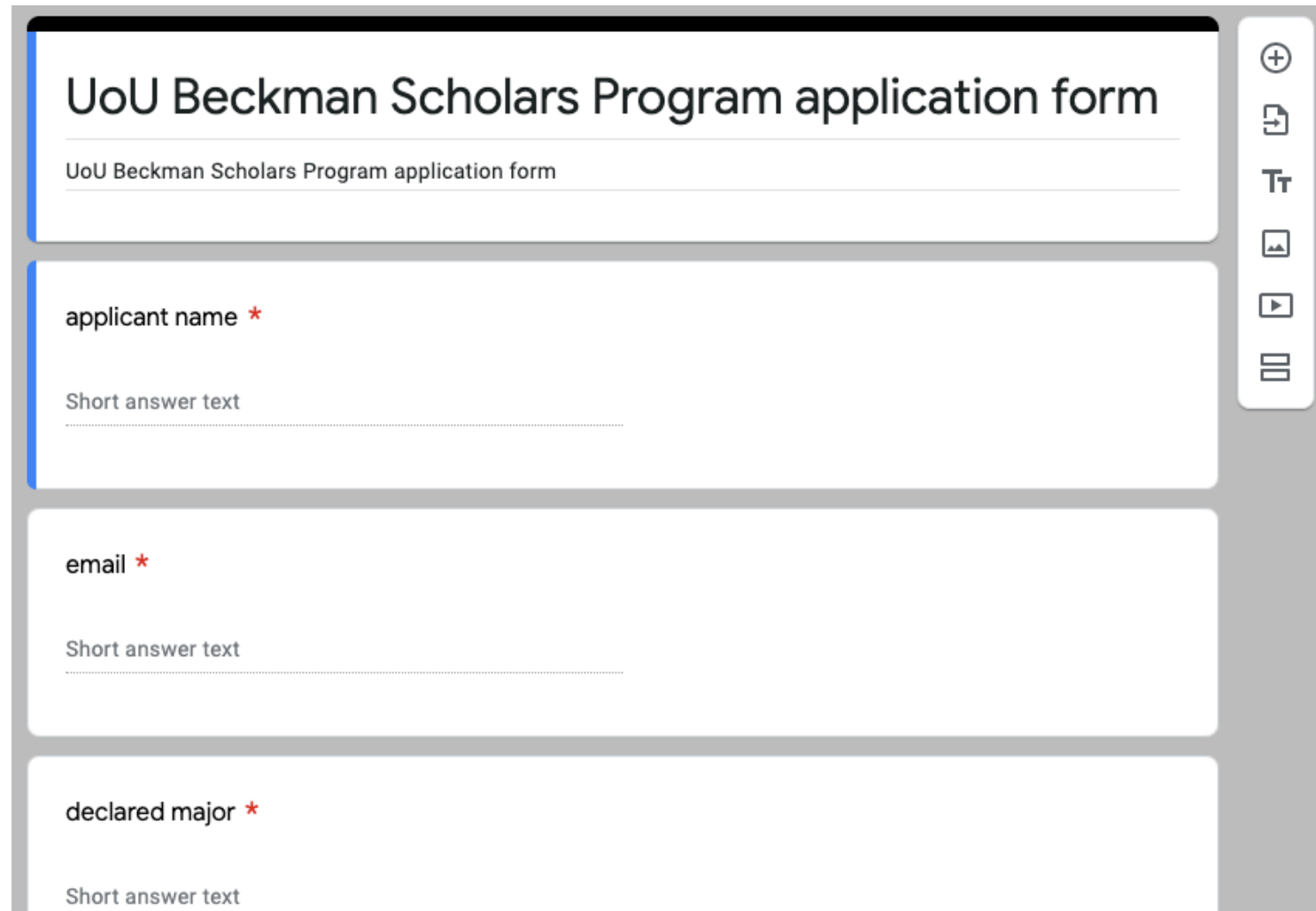
- **short essay:** Students will be given “The Legacy of Arnold O. Beckman” (page 9 of Terms and Conditions) to read and asked to write a 250-word essay explaining which one of Dr. Beckman’s rules they would embody as a UoU Beckman Scholar and explain your short (1-2 years) and long-term (10 years) career goals.

<https://www.beckman-foundation.org/about-foundation/7-rules-success/>

1. *There is no satisfactory substitute for excellence.*
2. *Absolute integrity in everything.*
3. *Everything in moderation, including moderation itself.*
4. *Hire the best people - then get out of their way.*
5. *Don't be afraid of making mistakes. If you're not making mistakes, you're probably not doing very much.*
6. *Acquire new knowledge and always ask why.*
7. *Rule #7: Don't take yourself too seriously.*

# The University of Utah – Beckman Scholars Program

application form: <https://forms.gle/nj9Xjwa4r35JZKbp9>



The image shows a screenshot of a Google Forms application form. The form is titled "UoU Beckman Scholars Program application form" and includes three required fields: "applicant name", "email", and "declared major". Each field is followed by a "Short answer text" input area. The form is displayed in a preview mode with a grey sidebar on the right containing various icons for editing and sharing.

**UoU Beckman Scholars Program application form**

UoU Beckman Scholars Program application form

applicant name \*

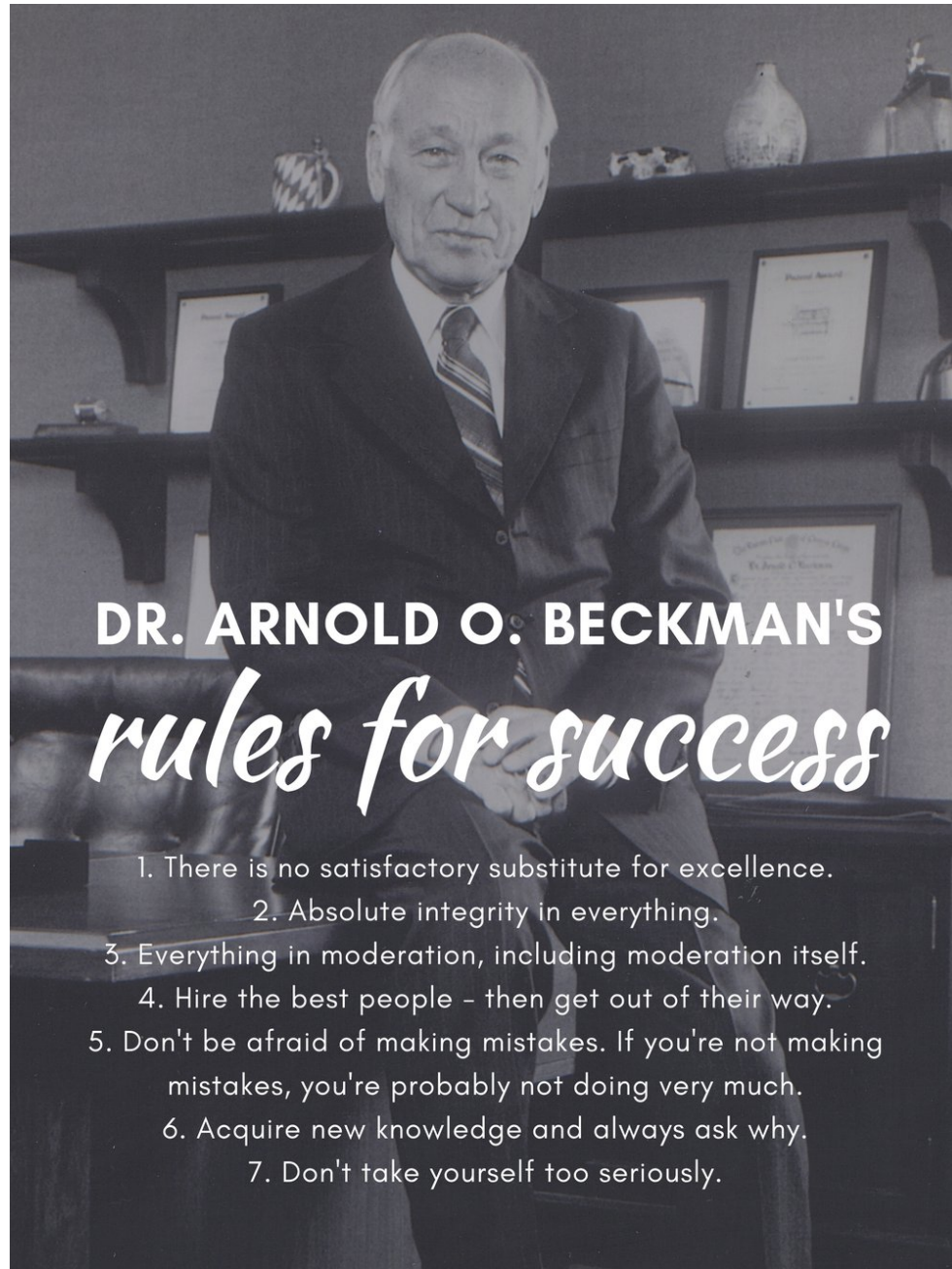
Short answer text

email \*

Short answer text

declared major \*

Short answer text



**DR. ARNOLD O. BECKMAN'S**  
*rules for success*

1. There is no satisfactory substitute for excellence.
2. Absolute integrity in everything.
3. Everything in moderation, including moderation itself.
4. Hire the best people - then get out of their way.
5. Don't be afraid of making mistakes. If you're not making mistakes, you're probably not doing very much.
6. Acquire new knowledge and always ask why.
7. Don't take yourself too seriously.



# The University of Utah – Beckman Scholars Program

**additional details about the Arnold and Mabel Beckman Foundation and the Beckman Scholars Program can be found here:**

[The Arnold and Mabel Beckman Foundation Mission Philosophy](#)

[The Beckman Scholars Program](#)

**Table 1.** Activity timeline for UoU Beckman Scholar recruitment and selection

	<b>Date</b>	<b>Planned Activity (2020 – 2023, recurring annually)</b>
<b>Phase I</b>	January 28, 2021	<b>Information Session:</b> Information Session: Scholar recruitment and solicitation virtual meeting time: 11:00 am - 12:00 pm MST
<b>Phase II</b>	February 1, 2021	<b>Solicitation:</b> Formal Program Solicitation: February 1, 2021 Application Deadline: March 31, 2021 at 6:00 p.m. MST, see <a href="#">application guidelines and submission information</a>
<b>Phase III</b>	March 31, 2021	<b>Application:</b> Application Deadline: March 31, 2021 at 6:00 p.m. MST, see <a href="#">application guidelines and submission information</a>



# The University of Utah – Beckman Scholars Program

**additional details about the Arnold and Mabel Beckman Foundation and the Beckman Scholars Program can be found here:**

[The Arnold and Mabel Beckman Foundation Mission Philosophy](#)

[The Beckman Scholars Program](#)

**Table 1.** Activity timeline for UoU Beckman Scholar recruitment and selection

	<b>Date</b>	<b>Planned Activity (2020 – 2023, recurring annually)</b>
<b>Phase IV</b>	April 2021 -- May 2021	<b>selection:</b> Committee to select final candidates by May 1, 2021 Formal disclosure of two UoU Beckman Scholars (May 15, 2021)
<b>Phase V</b>	June 2020	<b>Beckman Scholars begin:</b>

[application guidelines and submission information](#)

<https://science.utah.edu/uncategorized/beckman-application/>