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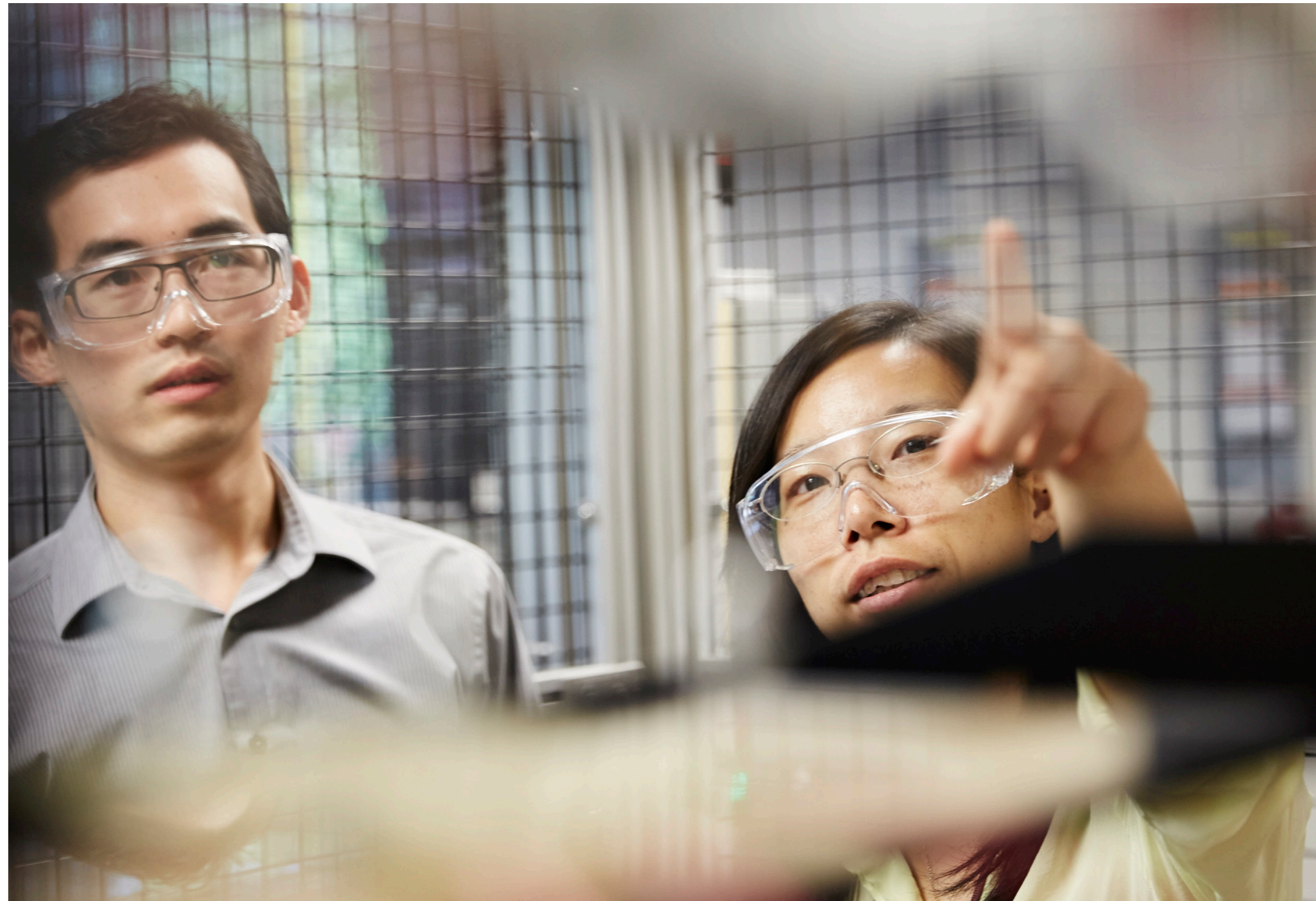
# ABB Research Award in honor of Hubertus von Gruenberg


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# ABB – a leader in power and automation, a leader in research and development

ABB is a pioneering technology leader in electrification products, robotics and motion, industrial automation and power grids, serving customers in utilities, industry and transport & infrastructure globally. Continuing a history of innovation spanning more than 130 years, ABB today is writing the future of industrial digitalization with two clear value propositions: bringing electricity from any power plant to any plug and automating industries from natural resources to finished products. As title partner of Formula E, the fully electric international FIA motorsport class, ABB is pushing the boundaries of e-mobility to contribute to a sustainable future. ABB operates in more than 100 countries with about 135,000 employees.

**We know that only sustainable technologies can truly achieve progress.**

And that it takes highly focused research and development to create innovative products. That's why ABB invests \$ 1.5 billion in research and development each year. 8,500 technologists, experts, and scientists work in our R&D departments around the world, creating the technologies that will shape the future. We've maintained close contacts with universities and research institutions around the globe for many years now.

It's a strategy that's proved successful. In 2014, ABB submitted more patent applications to the European patent office than any other Swiss company. We have been recognized by Thomson Reuters as one of the world's top 100 innovators for the third consecutive year.

**We're proud to have created outstanding innovations, among which are the following:**

YuMi, the world's first truly collaborative robot. Designed for highly flexible production processes in the electronics, computing, and communications industries, YuMi works side-by-side with people in production facilities.

With the number of electric vehicles on the road rising, the global demand for powerful and energy efficient vehicle charging stations is ever increasing. In 2018 ABB launched its latest EV charging solution, the Terra HP, the first 350 kW product on the market. Charging time for a range of 200 km is just eight minutes. Ideally suited for use at highway rest stops and petrol stations, Terra HP's ultra-high current has the capacity to charge both 400 V and 800 V cars at full power.

Our switchgear with its eco-efficient insulation gas mixture that replaces sulfur hexafluoride (SF6) to protect the environment.

With the ABB Research Award in Honor of Hubertus von Gruenberg, we are giving outstanding post-docs a chance to continue their research.

# Application form

## Contact information of applicant

First name	Surname	Date of birth
Address		
Telephone	Mobile	E-mail

## Contact information of recommending academic department

Name	Contact person
Address	
Telephone	E-mail

## Topic of the dissertation

## Topic of the planned research

Please describe how your research will contribute to a better world.

# How to apply?

## Who can apply?

We encourage everyone who has recently earned their doctoral degrees in the fields of mechanical engineering, electrical engineering, electronics, robotics, process automation, and related academic disciplines to apply for the 2019 ABB Research Award in Honor of Hubertus von Gruenberg if they have successfully completed their doctoral degrees within the years between 2016 - 2018 and are currently working at a university, research institution or comparable organization.

Those applicants whose dissertations involve power or automation topics in the fields of energy, manufacturing, transportation, and infrastructure will have a particularly good chance of winning this substantial personal research grant. But other exceptional work is also very welcome, especially if the creative use of software, electronics, or new materials promises to lead to innovative industrial solutions. The jury will look for specific real-world applications and potential for innovation. The benefit of the research to society and the environment will also factor highly into the jury's decision.

## We look forward to your application.

### How and when can I apply?

It's time to show us what you've got! Applications are already being accepted for the 2019 ABB

Research Award in Honor of Hubertus von Gruenberg. But you need to submit your application for the \$ 300,000 grant by January 31, 2019. Please submit the following documents to ABB in English by the above deadline:

1. Applicant name, dissertation title, dissertation abstract, university name, and date of defense
2. A copy of your full dissertation as a PDF file
3. A one-page letter of recommendation from your dissertation advisor that highlights the groundbreaking nature of your research
4. A brief description of the planned research project that the grant money will be used to fund including a confirmation of the university or institution at which this research is to be conducted (does not have to be the university where the dissertation was written)
5. A brief bio of yourself including current address and contact information
6. A notarized copy of the PhD diploma or doctoral transcript

We look forward to your application. Please use the form on the left for the required basic personal and work information and ensure that your documents are complete. Otherwise, we will unfortunately not be able to consider your application.

Please send the complete application package via e-mail to: **CH-hvg\_award@abb.com, attn. CTO of ABB.**

Any questions? We're glad to respond personally if you are unable to find the information you need on our website. Just send an e-mail to the CTO of ABB at: **CH-hvg\_award@abb.com**, and we'll be in touch.



# Determining the winner

## A two-phase selection process

### The shortlist

After the application deadline has passed, a committee of experts comprising ABB Research Fellows assesses all the submitted works and selects the twenty best dissertations for further consideration.

### The final round

A jury consisting of renowned scientists, the Chief Technology Officer of ABB, and Dr. Hubertus von Gruenberg then selects the most promising doctoral thesis and thus the recipient of the ABB Research Award. The decision is not contestable. In exceptional circumstances, the Award may be withheld – for instance in the event that none of the submitted dissertations meet the required standards.

### Selection criteria – evaluating scientific excellence

Some of the questions the jury seeks to answer include:

- Do the results of the dissertation advance science and does the work demonstrate a high degree of novel and independent research?
- Did the author of the paper take into account the most recent research on the topic?
- Does the work comply with all formal and scientific requirements?
- Has the author presented the results in an appealing and comprehensible manner (for instance, the method of presentation, selection of figures and illustrations, use of analogies)?
- Is the quality of the doctoral thesis of a very high level?
- Does the advising professor support the planned postdoctoral work with convincing arguments?
- Does the proposed postdoctoral work meet the required high standard?

### Important dates:

#### January 31, 2019

Deadline for applications

#### By mid-February 2019

Receipt of application confirmed

#### By mid-April 2019

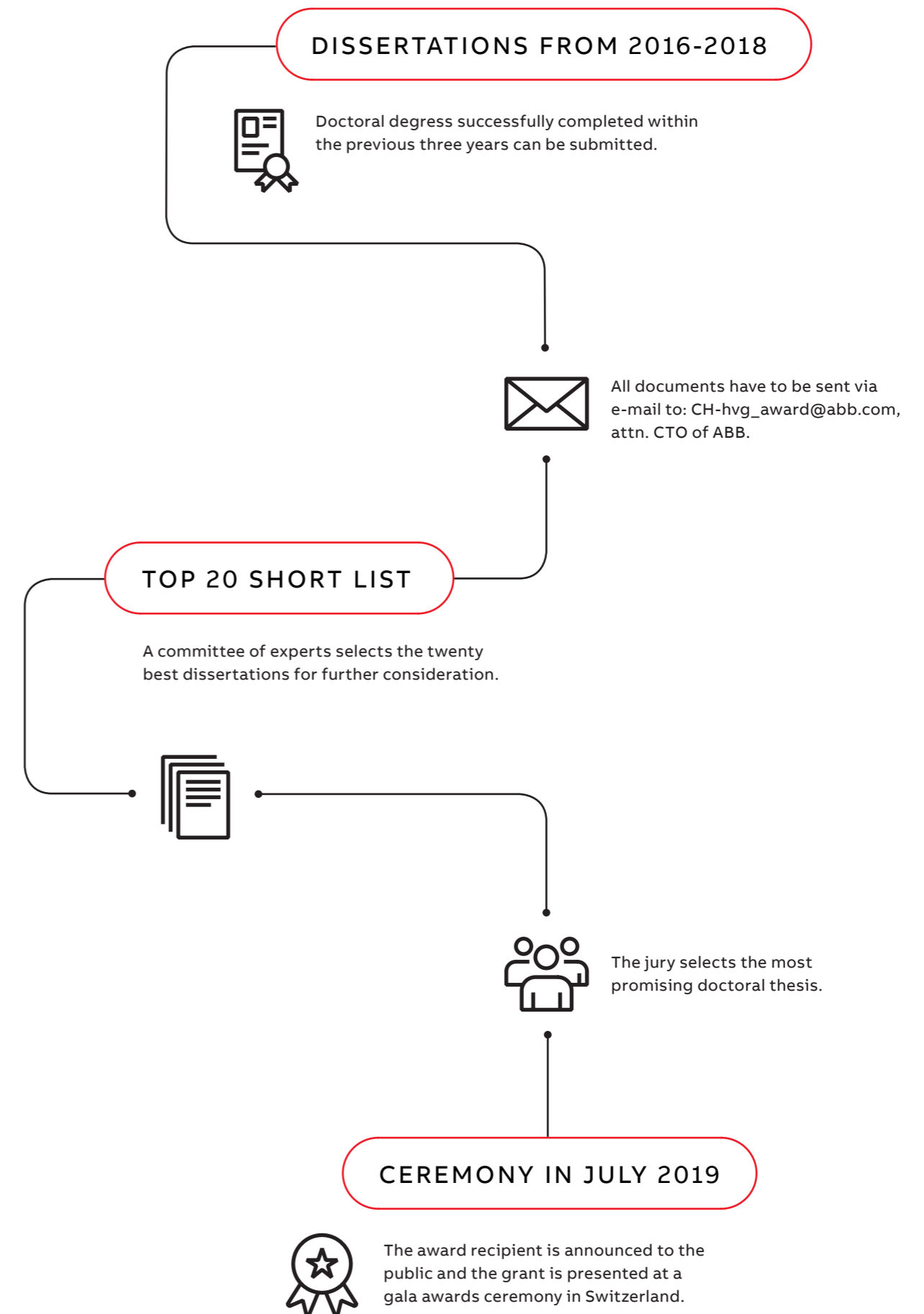
Authors of the twenty best dissertations are notified they have made the shortlist

#### By end of June, 2019

Winner is notified of decision

#### In July of 2019

The award recipient is announced to the public and the grant is presented at a gala awards ceremony in Switzerland





## Dr. Hubertus von Gruenberg – the inspiration behind the award

“After taking on Einstein’s theory of relativity, there was really nothing in my work left to fear.”

**DR. HUBERTUS VON GRUENBERG**

In 2015, ABB established a research award in honor of Dr. Hubertus von Gruenberg. The former chair of ABB’s board of directors embodies the perfect combination of business acumen and the conviction that innovation drives growth.

Born on the Baltic Sea island of Usedom in 1942, he wrote his dissertation on an alternative theory of relativity to that of Albert Einstein. At age twenty-nine, Gruenberg’s passion for automobiles led him to begin a career outside the university as a project manager for vehicle hydraulics at Alfred Teves, a manufacturer of automotive brakes in Frankfurt. He moved on to guide the beleaguered tire manufacturer Continental out of a crisis and later transformed ABB into an enterprise capable of earning sustainable profits. It was he who cemented ABB’s reputation as a technological leader and pioneer. In his eight years chairing the board, he dramatically increased ABB’s revenues – from \$ 24.5 to \$ 40 billion annually.

The solution to a 100-year-old electrical engineering puzzle – a hybrid circuit breaker for high voltage direct current (HVDC) – is just one of the countless innovations to arise from this period in the company’s history. It’s an innovation that has paved the way for the high-efficiency DC transmission grid of tomorrow.

Dr. Hubertus von Gruenberg is one of the most influential managers in the German-speaking world while remaining an enthusiastic scientist. Among researchers, he is known as a wellspring of ideas who provides inspiration and guidance. As a parting tribute to Dr. Hubertus von Gruenberg as a long-standing Chairman of the Board of Directors, ABB in 2015 established an award that provides a substantial grant to underscore his passion for research and problem solving while offering especially promising young scientists an incentive and opportunity to continue to pursue their own research.