SUBMIT A NOMINATION TODAY
Deadline June 30, 2021

The **AAAS David and Betty Hamburg Award for Science Diplomacy** recognizes an individual or a limited number of individuals working together in the scientific and engineering or foreign affairs communities who are making an outstanding contribution to furthering science diplomacy.

Over the past 28 years, AAAS has honored an international cadre of science luminaries for their contributions to international scientific cooperation and science diplomacy. **This year, the award has been renamed for David and Betty Hamburg** to recognize their unparalleled commitment to the significant role of science diplomacy to advance science, human rights, peace, and cooperation.

• The award is open to all regardless of nationality or citizenship.
• We accept self-nominations.
• Nominees must be living at the time of their nomination.

To learn more, visit [aaas.org/awards/science-diplomacy/about](http://aaas.org/awards/science-diplomacy/about)

**2016 WINNER**
Minister Naledi Pandor, Ph.D.
South African Minister of International Relations and Cooperation

Recognized for using science and technology to support development in South Africa and sub-Saharan Africa.

**Winners will receive:**
• Monetary prize of $10,000
• Commemorative plaque
• Worldwide promotion of their achievements through AAAS communication channels, including AAAS publications, member news, website, and social media
• Complimentary registration to the 2022 AAAS Annual Meeting
• Reimbursement for travel and hotel expenses to attend the AAAS Annual Meeting
• The opportunity to publish in *Science & Diplomacy*

AAAS gratefully acknowledges the Carnegie Corporation of New York for their generous support to launch the AAAS David and Betty Hamburg Award for Science Diplomacy and the individuals and foundations whose contributions have begun an endowment that will allow us to sustain it in perpetuity.
AAAS Mani L. Bhaumik Award for Public Engagement with Science

CALL FOR NOMINATIONS
Deadline June 30, 2021

The AAAS Mani L. Bhaumik Award for Public Engagement with Science celebrates notable scientists and engineers who demonstrate excellence in their contribution to public engagement with science. Public engagement emphasizes dialogue and promotes meaningful exchanges with the public about science- and technology-related issues in society.

The recipient receives a monetary prize of $5,000 and recognition at the 2022 AAAS Annual Meeting.

AAAS is seeking nominations for the 2022 award recipient to join our list of esteemed award winners. For more information and to submit a nomination, visit: aaas.org/PESAward

AAAS is grateful to quantum physicist Mani L. Bhaumik for his generous contribution to endow this award, which will allow AAAS to continue to recognize individuals whose creative methods are engaging the public in significant ways.

PHOTO CREDIT: Mani L. Bhaumik

RECOGNIZING PAST AWARD WINNERS

Esther Ngumbi 2021
J. Marshall Shepherd 2020
Richard Alley 2012
May Berenbaum 2009
Robert Ballard 1989

AAA S' Member Community is a one-stop destination for scientists and STEM enthusiasts alike. It’s “Where Science Gets Social”: a community where facts matter, ideas are big and there’s always a reason to come hang out, share, discuss and explore.
PUT YOUR RESEARCH OUT IN FRONT

Submit your research: cts.ScienceMag.org
Plastic Discs and Annular Absorbers
Employing precision-moulding and die-cutting processes, Porvair Sciences can efficiently convert hydrophilic Vyon porous plastic into discs and annular-shaped parts to tightly tolerated specifications. These versatile approaches enable Porvair to offer high-performing, precisely manufactured products in diameters ranging from 3 mm to 1 m using any of its hydrophilic Vyon materials options, up to 4.75 mm thick. Hydrophilically treated Vyon materials have exceptional absorption and fluid-transfer properties and therefore, can be implemented as an efficient absorber with their instantaneous wetting properties. Due to the tortuous path of its porous structure, hydrophilic Vyon can efficiently filter and trap contaminants while allowing for effective delivery of drugs in various forms, such as solutions, suspensions, and emulsions. It has been tested to the most rigorous of United States Pharmacopeia classes and certified with a Class VI approval.

Porvair Sciences
For info: +44-(0)-1978-661144
www.vyonporousplastics.com/material-treatments

High-Performance Beam Collimators
Optical Surfaces announces a new series of high-performance beam collimators designed for modulation transfer function testing of optical systems. LW-series beam collimators incorporate a low-expansion off-axis parabolic mirror manufactured to better than λ/10 p-v surface accuracy. The optics within the collimators are secured by the use of stress-free mounts and come prealigned for optimum performance. Their off-axis design produces no central obscuration, ensuring highly efficient transmission. The all-reflecting design of LW-series beam collimators is achromatic, and their aluminium/magnesium fluoride coatings enable them to operate from the UV to the infrared without adjustment. Using low-expansion glass mirror substrates, these collimators provide high operational stability and performance. Each system has an output port datum plane, giving a defined distance to the focus. Each system is also supplied with an easy-to-use alignment aid to identify the center of the focal plane. All LW-series beam collimators provide a 20-mm field, ensuring full compatibility with standard black bodies.

Optical Surfaces
For info: +44-(0)-208-668-6126
www.optisurf.com

Biotinylated Heparan Sulfate Antibodies
AMS Biotechnology has launched two new biotinylated formats of the heparan sulfate 10E4 antibody (high and low biotin) along with a starter pack, to allow scientists to test both formats at a reduced cost. Heparan sulfate (HS) is a highly sulfated linear polysaccharide that is attached to a core protein to form HS proteoglycans on the cell membrane or in the extracellular matrix. In particular, HS has emerged as a key factor in infection by the SARS-CoV-2 virus, which is the cause of the COVID-19 coronavirus pandemic. Biotinylated antibodies are often used for the detection of low-abundance proteins. The process of biotin labeling is also frequently used as a nonradiative labeling method for proteins and as a protein purification technique. Biotin conjugation of the heparan sulfate 10E4 antibody confers many advantages by removing the need for conjugated secondary antibodies to quantify the level of detection/binding in immunological assays.

AMS Biotechnology
For info: +44-(0)-1235-828200
www.amsbio.com

Automated Protein Purification
Automate your protein purification while maintaining sample integrity using the Thermo Fisher Scientific KingFisher Apex instrument. It automates protein isolation at low sample input volumes and produces yields high enough for LC-MS and Western downstream applications. The flexible design supports common applications as well as custom magnetic-based biomolecular separation—all with little hands-on time. It comes with user-defined, controlled cooling and heating options to maintain sample integrity. You can create and modify protocols to optimize the isolation of difficult-to-express proteins. KingFisher Apex supports 24- and 96-well plate formats for high-throughput processing. It produces consistent yields for downstream applications, such as immunoprecipitation, phage display, peptide mapping, and quantitation.

Thermo Fisher Scientific
For info: 800-955-6288

Nasal Swab for COVID-19 Testing
Melbourne-based Rhinomed Limited has provided evidence that its Rhinoswab provides superior performance for COVID-19 testing as well as making nasal sampling easier and more comfortable for users. Dual-nostril Rhinoswab has been developed to provide more comfortable, accurate, and standardized nasal sample collection that people can do themselves. Rhinoswab offers significant potential community benefits, including lessening the burden and risk to health care workers. In December 2020, the company established that Rhinoswab was comparable to existing standard-of-care nasal swabs in detecting the SARS-CoV-2 virus using RT-PCR testing, through testing at the Victorian Infectious Diseases Reference Laboratory (Peter Doherty Institute). Rhinomed has further refined the swab technology by improving the nylon flock used on the swab. Rhinoswab has recently been approved for sale in the Australian market, is listed on the Australian Register of Therapeutic Goods, and has class 1 registration with the U.S. Food and Drug Administration.

Rhinomed Limited
For info: 866-316-0671
www.rhinomed.global/about-rhino-med/sample-collection

Hyperspectral Sensor Chlorophyll Fluorescence Measurements
The Hyperspec Solar Induced Fluorescence (SIF) imaging sensor from Analytik is ideal for remote sensing, particularly in plant and crop photosynthesis and climatology applications where high-resolution chlorophyll fluorescence measurements are vital. Its pushbroom sensor collects hyperspectral image data with 1,600 spatial pixels per line at extremely high spectral resolution (0.1 nm–0.2 nm full width at half maximum) across the chlorophyll fluorescence emission spectrum from 671 nm to 780 nm. This allows both the important oxygen-A and oxygen-B bands (O2-A and O2-B) to be exploited for more accurate insight into photosynthetic processes. With this data, environmental scientists can gain a better understanding of plant physiology and stress. The Hyperspec SIF imaging sensor is purpose-built for deployment on manned aircraft or for field-based work, such as measurements from environmental observation towers.

Analytik
For info: +44-(0)-1954-232-776
analytik.co.uk
CALL FOR PAPERS

BioDesign Research

BioDesign Research is a Science Partner Journal published in affiliation with Nanjing Agricultural University (NAU) and distributed by the American Association for the Advancement of Science (AAAS). BioDesign Research publishes high quality breakthrough research, reviews, editorials, and perspectives focusing on in silico biosystems design, genetic or epigenetic modifications, and genome writing or rewriting in any organism.

Submit your research to BioDesign Research today!
Learn more at spj.sciencemag.org/bdr

The Science Partner Journals (SPJ) program was established by the American Association for the Advancement of Science (AAAS), the non-profit publisher of the Science family of journals. The SPJ program features high quality, online-only, editorially independent open-access publications produced in collaboration with international research institutions, foundations, funders and societies. Through these collaborations, AAAS expands its efforts to communicate science broadly and for the benefit of all people by providing a top-tier international research organization with the technology, visibility, and publishing expertise that AAAS is uniquely positioned to offer as the world’s largest general science membership society.

Learn more at spj.sciencemag.org

@SPJournals  @SPJournals

ARTICLE PROCESSING CHARGES WAIVED UNTIL 2022
The ability to genetically modify immune cells provides a powerful tool to sense and treat diseases that our natural immune system cannot normally handle. ProMab's established CAR-T CRO platform allows us to work not only with T cells but also advance research in other immune cell types by utilizing highly capable cellular engineering techniques such as gene editing, viral transduction, setting up model cell systems, or performing detailed cell-based assays.

**Types of Cells:**

- Macrophage
- Dendritic cell
- Natural Killer cell
- γδ T cell
- Erythrocyte
- B cell
- Monocyte
- T cell

*All products are for research only*