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### **Three Winners Selected in \$25,000 Sustainable Packaging for Micronutrient Powders Challenge**

Partners award prizes for best ideas to improve packaging for one of the leading interventions to combat malnutrition globally.

NEW YORK, February 11, 2013--Scientists Without Borders and the Sackler Institute for Nutrition Science, both programs of the New York Academy of Sciences, partnered with DSM's humanitarian nutrition think tank, *Sight and Life*, to announce the winners of their \$25,000 open innovation challenge seeking **More Sustainable and Effective Approaches for Delivering Micronutrient Powders** (MNPs). To initiate this challenge, three organizations dedicated to innovation in global development and human nutrition partnered to identify and accelerate solutions to the complex global challenge of addressing both malnutrition and sustainability.

With some 2 billion people worldwide suffering from “hidden hunger” (the deficiency of essential micronutrients, such as Vitamin A, B-vitamins, zinc, and iron, even where sufficient caloric intake might exist), MNPs are a critical tool in tackling global malnutrition among children under the age of 5, in low-resource settings and refugee camps. Approximately 200 million MNP packets are distributed each year by governments and humanitarian organizations, including UNICEF and the World Food Programme. However, the current foil sachets in which the powders are packaged cannot be recycled, re-purposed, burned, or composted, creating large amounts of collateral waste in these settings. This challenge therefore sought innovative ideas for more sustainable and effective approaches to delivering these critical supplements.

The three winners, who will share in the \$25,000 prize, are:

- **First Place** (Receiving \$12,500): **Jose Tarquino** of Valley Stream, NY, for “New Double Sack (DS) economical packaging for ‘Essential Powdered Nutrition Supplements’,”
- **Second Place** (Receiving \$9,000): **Ilya Mir** of Sacramento, CA, for “Repurposing Existing Condiment Packaging,” and,
- **Third Place** (Receiving \$3,500): **Mehrdad Keshmiri** of Port Moody, Canada, for “Use of Chitosan setting solution for sustainable and effective packaging for essential powdered nutrient supplements to combat malnutrition.”

The winners were chosen by an independent expert selection panel convened by Scientists Without Borders. The members of the expert panel were Saskia De Pee of the World Food Programme; Joel Gittelsohn, Professor in the Department of International Health at the Johns Hopkins University Bloomberg School of Public Health; Nina Goodrich of GreenBlue and the Sustainable Packaging Coalition; Lynnette Neufeld of the Micronutrient Initiative; and Arnold Timmer of UNICEF. The panelists chose the winning solutions from 36 submissions that were generated from 15 countries over 90 days, with one-third of the submissions offered by solvers in the developing world.

The winning solutions are grounded in a combination of proven packaging techniques and new, innovative concepts. Each winning solution also addresses the need to create MNP packaging that is both effective in protecting the product and is sustainable as the distribution of MNPs is scaled-up. Judges noted that the solution that was placed first—a hardy, biodegradable film inner sack containing the micronutrients with a paper outer sack—was well-considered, mature, and viable for implementation, and that similar materials have been used successfully in other packaging situations.

“Scientists without Borders is committed to utilizing innovative approaches to identify and accelerate solutions to urgent global development challenges, including by connecting the unique and diverse insights of as many passionate problem-solvers as possible with the expertise and resources of our strategic partner network to advance impact and scale,” says Shaifali Puri, Executive Director of Scientists Without Borders. “We are thrilled to partner with The Sackler Institute and *Sight and Life* to apply our collaborative open innovation model to combat human malnutrition while promoting more sustainable and effective interventions.”

“The Sackler Institute for Nutrition Science has been developing a global research agenda for nutrition science, in collaboration with the World Health Organization and in consultation with more than 300 scientists across the world. This process has shown us where the critical gaps in knowledge exist, and has pointed to the urgency for concerted efforts to stimulate creative thinking and novel approaches for addressing nutrition problems,” says Dr. Mandana Arabi, Executive Director of The Sackler Institute for Nutrition Science at the New York Academy of Sciences. “The micronutrient sustainable packaging challenge is a great example of such efforts, and shows the vast potential of open innovation models for advancing research.”

“At *Sight and Life* we are committed to fighting micronutrient deficiencies that affect the world’s poor and we are also committed to a sustainable approach that considers the environment. We therefore are excited to support a project that could result in packaging innovations that ensures micronutrient powders improve the nutrition of the most vulnerable, while having the lowest environmental footprint. Through these types of partnerships we can look forward to a brighter future for people and the planet,” says Dr. Klaus Kraemer, Director of *Sight and Life*.

To disseminate the challenge to as broad a solver network as possible, Scientists Without Borders also partnered with NineSigma, a leading private-sector open innovation network. “We were pleased to be able to leverage our proven search methodology and global network to find solutions that were both environmentally sensitive and effective in protecting the product. We were particularly pleased to reach innovators in developing countries who are most closely impacted by this critical issue and ultimately to find innovative packaging solutions that will work for Scientists Without Borders and its partner organizations,” said Dr. Al Malouf, NineSigma Senior Program Manager.

Jose Tarquino, the first place winner, notes, “The challenge immediately grabbed my attention as it posed both human and technical problems: helping disadvantaged people, while, at the same time, improving an existing technology that impacts the environment. Given my experience in

chemical engineering, biotechnology, food packaging and new, green, raw materials, I knew I had the ability to develop a sound proposal.”

In keeping with the partners’ joint mission, and Scientists Without Borders’ open platform, the full solutions will be posted and made publicly available on the Scientists Without Borders website in order to encourage further uptake and innovation stemming from the ideas. To see the winning solutions, please visit [www.scientistswithoutborders.org](http://www.scientistswithoutborders.org)

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### **About Scientists Without Borders**

Scientists Without Borders, a public/private partnership led by the New York Academy of Sciences, is a web-based collaborative community that generates and advances innovative and effective science and technology-based solutions to the world's most pressing global development challenges. Scientists Without Borders's unique model leverages a free online platform to connect a worldwide group of cross-disciplinary, multi-sector users to develop and openly share concrete and effective solutions to these challenges. To learn more about Scientists Without Borders, visit [www.scientistswithoutborders.org](http://www.scientistswithoutborders.org).

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### **About The Sackler Institute for Nutrition Science**

The New York Academy of Sciences, in partnership with The Mortimer D. Sackler Foundation, Inc., established The Sackler Institute for Nutrition Science to create a coordinated effort to support and disseminate nutrition science research. The Sackler Institute for Nutrition Science is dedicated to advancing nutrition science research and knowledge, mobilizing communities, and translating this work into the field. The Institute is generating a coordinated network across sectors, disciplines, and geographies that promotes open communication; encourages exchange of information and resources; nurtures the next generation of scientists; and affects community intervention design and public policy changes. Visit us online at [www.nyas.org/nutrition](http://www.nyas.org/nutrition).

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### **About Sight and Life**

Sight and Life is the humanitarian nutrition think tank of DSM. Sight and Life promotes nutrition research, shares best practices and mobilizes support for the world’s undernourished. We believe that the right mix of funding, knowledge, technology and policy will lead to better health. We work through advocacy and leadership to address societal changes affecting dietary quality. We act responsibly to disseminate information that reflects current knowledge and evolving scientific evidence. We also aim to promote partnerships that are able to solve outstanding problems. For further information please visit [www.sightandlife.org](http://www.sightandlife.org).

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### **About NineSigma**

NineSigma connects organizations with external innovation resources to accelerate innovation in private, public and social sectors. The company provides open innovation services to organizations worldwide, including Kraft Foods, Philips, Siemens, and Unilever, to solve

immediate challenges, integrate new knowledge, fill product pipelines, and stay ahead of the competition. Named to the 2012 Inc. 5000 list of fastest-growing private U.S. companies, NineSigma's proprietary process has produced billions of dollars in value for its clients. NineSigma has the largest open global network of solution providers and an extensive database of existing solutions spanning numerous industries and technical disciplines. NineSigma's online innovation community, NineSights®, is the world's first open innovation social media destination, connecting innovators of all sizes with resources and relationships to drive growth. Learn more at [www.ninesigma.com](http://www.ninesigma.com) and [www.ninesights.com](http://www.ninesights.com).

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### **About the New York Academy of Sciences**

The New York Academy of Sciences is an independent, not-for-profit organization that since 1817 has been committed to advancing science, technology, and society worldwide. With 25,000 members in 140 countries, the Academy is creating a global community of science for the benefit of humanity. The Academy's core mission is to advance scientific knowledge, positively impact the major global challenges of society with science-based solutions, and increase the number of scientifically informed individuals in society at large. Please visit us online at [www.nyas.org](http://www.nyas.org).