

REQUEST FOR IDEAS #68502

Seeking More Sustainable and Effective Packaging for Essential Powdered Nutrient Supplements to Combat Malnutrition

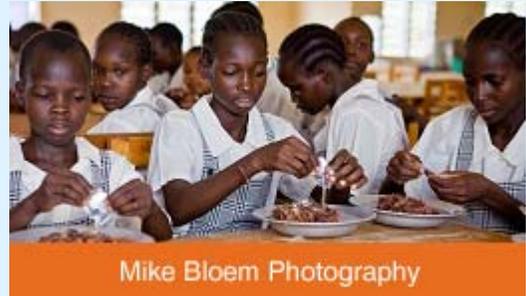
Ideation Close Date: 09/30/2012

SOLUTION PROVIDER HELP DESK

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Reward

Up to \$25,000 for novel, feasible, and cost-effective sustainable packaging ideas or new methods of delivering micronutrient powders to people in very low-resource settings in developing countries. Where practicable and feasible, there may be an opportunity for the winning solver to work with the partners to further develop the selected idea.



ScientistsWithoutBorders
MOBILIZING SCIENCE, IMPROVING LIVES



THE SACKLER INSTITUTE
for NUTRITION SCIENCE

REQUEST FOR IDEAS

NineSigma, representing Scientists Without Borders, in partnership with The Sackler Institute for Nutrition Science at the New York Academy of Sciences and DSM's not-for-profit nutrition think tank *Sight and Life*, seeks ideas for more sustainable packaging or more effective delivery options for micronutrient powders (MNPs) of essential vitamins and minerals in very low resource environments in Developing Countries including Refugee Camps.

The successful Idea will:

- Offer a **more sustainable packaging** material that can be recycled or repurposed to reduce the effects of waste **OR** replace the current packaging method with an effective **alternative method or approach to distributing MNPs** to millions of individuals.
- Adequately protect the vitamins and minerals in the powders from harsh

conditions including moisture, UV light and degradation in hot and humid environments.

- Be safe and hygienic.
 - Cost <1.5 cents US / serving **OR** if the unit cost is greater, the packaging or delivery method should be fully recyclable or be able to be repurposed.
 - Be compatible with manufacturing >100 million units per year.
- Preferred but not required:**
- Where appropriate, include ideas/methods to repurpose the packaging or to collect and ship the used packages to recycling or composting centers.

BACKGROUND

Every year, multi-lateral organizations, NGOs, and other entities distribute hundreds of millions of sachets of MNPs to tackle global micronutrient malnutrition. MNPs are single-dose packets that contain a powder of essential vitamins and minerals, such as vitamin A, B-vitamins, zinc, and iron, that can be mixed into the available

food after preparation and immediately prior to consumption in order to supply the essential micronutrients lacking in the diet. They do not alter the taste or appearance of the food to which they are added and can be effectively administered in a range of environments, and can be easily and cost-effectively delivered at scale.

MNPs are designed to address hidden hunger - the deficiency of essential micronutrients (vitamins and minerals) in a person's diet even where sufficient caloric intake might exist. Hidden hunger affects an estimated 2 billion people around the world and is a critical global health and development issue. Inadequate micronutrient intake results in the significant impairment of mental and physical development in children (an estimated 40%-60% of infants in the developing world are afflicted) and contributes to the rising prevalence of chronic disease later in life. This double burden has significant negative health consequences and decreases economic productivity. The adverse consequences of hidden hunger are felt most acutely in the developing world, where the lack of access to a variety of nutritious foods leads to a diet lacking in essential micronutrients.

MNPs are one of the most widely used nutritional interventions in the world especially in programs aimed at the most vulnerable. Hundreds of millions of sachets of MNPs are distributed annually, and a partnership between DSM, *Sight and Life* and the World Food Programme has to date distributed over 200 million sachets of a MNP product known as MixMe™. The recent Copenhagen Consensus 2012 expert panel, which includes four Nobel Laureates, recently cited interventions involving micronutrient supplementation as the most worthy of investment because of their high cost-benefit ratio in addressing global malnutrition.

Currently, the packaging for MixMe™, which is similar to other available MNP packaging, is comprised of a foil packet that is 4 cm x 6.5 cm and is made of two layers of composite foil composed of aluminum, PET, and polyethylene. The packets contain 1g of MNP. The composition of the foil packets have been designed to protect the MNP from degradation under difficult environmental conditions, including heat, light, humidity, and temperature.

Additional specs for the packaging as well as images of the current packaging can be provided upon request.

These types of packets are difficult to recycle, destroy, repurpose, or dispose of due to their current composition. The current packaging is used to protect the MNP powder from degradation due to harsh environmental conditions (including moisture, heat, humidity and UV light). In addition, the conditions under which many of them are distributed (refugee camps or environments with extremely limited waste disposal systems) makes their disposal challenging. Consequently, as a result of the large number of MNP sachets distributed each year, a great deal of collateral waste is generated in the low-resource communities where MNPs are most valuable. Novel or alternative packaging and delivery approaches might also contribute to the scale-up of MNPs interventions by being more appealing from a design or delivery perspective.

The objective of this request is to source novel ideas for reducing or eliminating the ecological consequences of MNP packaging through innovative packaging materials and/or novel methods to deliver MNPs in a more sustainable and ecologically sensitive way that might also contribute to scaling-up their usage.

GROUND RULES FOR THIS CHALLENGE

- Respondents must own or have the right to grant third parties the use of their submitted ideas.
- Respondents must submit only non-confidential information.
- Submission of an idea grants the partners the worldwide, non-exclusive, royalty-free, irrevocable and perpetual right to use and sublicense to third parties and share submitted ideas, but does not guarantee use of submitted ideas.
- Winning idea(s) will be identified within 8-10 weeks of the response deadline and will be notified in writing.
- All respondents submissions will be acknowledged in writing but only the winner will be informed of their success.

RESPONDING TO THIS CHALLENGE

By submitting a response, respondents agree to all of the following submission requirements, including confidentiality, selection and the review processes:

Respondents confirm that they are at least the age of majority or older in their place of residence; and

Respondents agree to the submission terms described in the response template

Confidentiality

Respondents confirm that the submitted idea or "Response" does not and will not be deemed to contain any confidential information of any kind whatsoever.

Selection / Review Process

Respondents acknowledge that the partners reserve the sole and absolute right and discretion to (i) select for the award all, some or none of the responses received to this request, (ii) to select only specific elements within an idea for award and (iii) determine all award amounts.

The award determination will be made by an independent expert panel convened for this purpose, to ensure relevant expertise and diversity of perspectives. The members of the panel will be announced prior to the conclusion of the challenge.

ABOUT THE PARTNERS:

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 please visit www.scientistswithoutborders.org.

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 convene key stakeholders across industry, government, and academia for precompetitive dialogue in order to create a coordinated effort to support and disseminate nutrition science research. The Sackler Institute is a neutral venue for high-level collaboration among leading organizations that, individually, have a limited positive impact, but together, have the power to compel real, widespread transformation in the area of malnutrition. For more information, visit www.nyas.org/Nutrition.

About Sight and Life

Sight and Life is the not-for-profit nutrition think tank of DSM. We care about the world's most vulnerable populations, and exist to help improve their nutritional status. Acting as their advocates, we guide original nutrition research, disseminate its findings and facilitate dialog to bring about positive change. 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. www.sightandlife.org

The New York Academy of Sciences

The New York Academy of Sciences is an independent, not-for-profit organization committed to advancing science, technology, and society worldwide since 1817. 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