



SOY AND METABOLIC SYNDROME HEALTH RESEARCH

Request for Letters of Intent

The Soy Nutrition Institute (SNI) requests letters of intent from parties interested in conducting clinical research evaluating the effects of soy (protein) on a variety of outcomes related to risk factors associated with metabolic syndrome and/or non-alcoholic fatty liver disease. Outcomes may include, but are not limited to, assessment of liver enzymes, fatty liver, abdominal fat, lipid metabolism, glucose and insulin regulation, and changes in the microbiome.

It is anticipated that up to \$800,000 (USD) of total funds will be available for the proposed research. Funds will be distributed over a three-year period (up to \$100,000 in year one, up to \$500,000 in year two and up to \$200,000 in year three). Completion date for the first year of the project is September 30, 2021, and September 30, 2022 for the second year. The study must be fully concluded by September 30, 2023.

The letter of intent should describe study participants, study duration, endpoints (primary and secondary), and dose, and delivery vehicle for soy protein and, if applicable, the control product. The letter of intent can include more than one study, as long as the total budget does not exceed \$800,000.

SUBMISSION GUIDELINES

Interested researchers should submit a completed application form and a letter of intent. The letter of intent should be approximately two pages in length and should include three sections:

- Brief qualifications of the investigator(s) and their affiliated institution(s) as they relate to the proposed research (detailed information on qualifications, such as the curriculum vitae of the principal investigator, can be sent as an addendum);
- The experimental design including endpoints to be tested; and
- Proposed budget

Successful applications will be from multidisciplinary teams who have experience conducting the planned research. Applicants are encouraged to be creative in their proposed research and to consider outcomes that are well established markers of health as well as less explored endpoints that may provide new insight into the health benefits of soy.

Please note:

- Continuing projects are subject to annual review
- These items may *not* be included in the proposed budget:
 - Indirect costs
 - Purchase of capital equipment, although leasing costs may be included
 - Salary of Principal Investigator or Co-investigator
- Funding for this study will be provided by the United Soybean Board (USB), with screening and evaluation of proposals provided on behalf of the USB by the SNI. Contract and administration details will be provided by USB contractor SmithBucklin and subcontractor Communique, Inc.
- Funding for the first year of the project is in place, not to exceed \$100,000. Funding for the second and third years of the project is subject to review and approval by USB in the summer of 2021 and 2022, respectively.

The deadline for the submission of the application form and letter of intent is January 15, 2021.

Based on the letters of intent, the SNI will request expanded full proposals and detailed budget information from selected research groups by February 1, 2021. The deadline for submission of full proposals will be March 8, 2021. After reviewing the expanded proposals, the SNI will select one group with whom to enter into contract negotiations. At that time, details of the experimental design can be finalized.

Application form and letter of intent should be sent to Mark Messina, PhD, MS, Executive Director, SNI, at: markjohnmessina@gmail.com. Questions prior to submission can also be addressed to Dr. Messina by email or phone: 413-464-0565.

For background information on the effects of soy protein on the microbiome and selected health outcomes, the following references are recommended:

1. Guevara-Cruz M, et al. Improvement of Lipoprotein Profile and Metabolic Endotoxemia by a Lifestyle Intervention That Modifies the Gut Microbiota in Subjects With Metabolic Syndrome. *J Am Heart Assoc.* 2019. Doi: 10.1161/JAHA.119.012401
2. Woo HW, et al. Habitual consumption of soy protein and isoflavones and risk of metabolic syndrome in adults ≥ 40 years old: a prospective analysis of the Korean Multi-Rural Communities Cohort Study (MRCohort). *Eur J Nutr.* 2019. doi: [10.1007/s00394-018-1833-8](https://doi.org/10.1007/s00394-018-1833-8)
3. Butteiger DN, et al. Soy Protein Compared with Milk Protein in a Western Diet Increases Gut Microbial Diversity and Reduces Serum Lipids in Golden Syrian Hamster. *J Nutr*, 2016. doi.org/10.3945/jn.115.224196
4. Panasevich, MR, et al. Soy compared with milk protein in a Western diet changes fecal microbiota and decreases hepatic steatosis in obese OLETF rats. *J Nutr Biochem*, 2017. doi.org/10.3945/jn.115.224196
5. Sánchez-Tapia, M, et al. Antibiotic Treatment Reduces the Health Benefits of Soy Protein. *Mol. Nutr. Food Res.* 2020, doi: 10.1002/mnfr.20200053
6. Zarei A, et al. Effect of soy consumption on liver enzymes, lipid profile, anthropometry indices, and oxidative stress in patients with non-alcoholic fatty liver disease: A systematic review and meta-analysis of clinical trials. *Iran J Basic Med Sci* 2020 **23**, 1245-1250. 10.22038/ijbms.2020.46854.10797
7. Li H, Jia E & Jiao J (2020) Phytoestrogens in NAFLD: Potential mechanisms of action. *Horm. Metab. Res.* **52**, 77-84. 10.1055/a-1089-7710
8. Fernandez-Raudales *et al.* (2012) Consumption of different soymilk formulations differentially affects the gut microbiomes of overweight and obese men. *Gut Microbes* **3**, 490-500. 10.4161/gmic.21578

ABOUT THE SOY NUTRITION INSTITUTE

The Soy Nutrition Institute is a scientific organization dedicated to research on soy and health. Established in 2004, the organization includes a scientific advisory board and research and health professionals from soy-related companies and organizations including the United Soybean Board, DuPont, ADM, Kellogg, Medifast, Impossible Foods, Herbalife, Soylent, Danone North America, House Foods America, Benson Hill, LIVEKINDLY, the Agricultural Utilization Resource Institute (AURI), the United States Soybean Export Council, American Soybean Association's World Initiative for Soy in Human Health, and the Soyfoods Council. More information about the SNI can be found at thesoynutritioninstitute.com.



Research Project Application Fiscal Year 2021 (4/1/21-9/30/21)



Project Title:	
Principal Investigator Name:	
Principal Investigator Title, Employer:	
Mailing Address:	
City/State/Zip:	
Telephone Number:	Email Address:

Co-Investigator(s) (Use additional page if needed.)

Co-Investigator Name:
Co-Investigator Title, Employer:
Co-Investigator Name:
Co-Investigator Title, Employer:

New Project _____ Ongoing Project _____	
Proposed Funding Start Date:	Proposed Funding End Date:
Total Funding Requested: Year 1 - \$ _____ Year 2 - \$ _____ Year 3 - \$ _____ (4/1/2021 - 9/30/2021) (10/1/2021 - 9/30/2022) (10/1/2022 - 9/30/2023)	
Project title: <i>(Insert project title here)</i>	
List of Project Partners, Institutions, Organizations, Businesses and Agencies: <i>(Use additional page if needed.)</i>	
Principal Investigator:	Authorized Organizational Representative:
Signature _____ Date _____	Signature _____ Date _____

For assistance, contact Sarah Alsager with Communique, Inc., funding administrator, at sarah@communiqueinc.com.