

January 18, 2018

Office of Disease Prevention  
National Institutes of Health  
6100 Executive Blvd., Room 2B03, MSC 7523  
Bethesda, MD 20892-7523

Dear Dr. Murray,

The Endocrine Society appreciates the opportunity to comment on the Office of Disease Prevention (ODP) draft strategic plan for FY 2019-2023. Founded in 1916, The Endocrine Society is the world's oldest, largest, and most active organization devoted to research on hormones and the clinical practice of endocrinology. Today, the Endocrine Society's membership consists of over 18,000 scientists, physicians, educators, nurses, and students from more than 120 countries. Society members represent all basic, applied, and clinical interests in endocrinology.

We share the ODP's goal of improving public health and we are encouraged by the potential opportunities for collaboration indicated in the strategic plan. In our response to the ODP Request for Information soliciting feedback on the Draft Strategic Plan (see Attachment), we highlight specific areas within Strategic Priorities II, III and V where our members can provide valuable insight in support of the strategic objectives. These areas represent opportunities for increased collaboration between the ODP and our Society.

We look forward to opportunities to work together as the ODP explores new research areas and implements the objectives outlined in the strategic plan. Thank you for considering The Endocrine Society's comments. If we can be of further assistance, please contact Dr. Joseph Laakso at [jlaakso@endocrine.org](mailto:jlaakso@endocrine.org).

**Strategic Priority II: Identify prevention research areas for investment or expanded effort by the NIH**

We are encouraged by ODP's strategic objective to work with stakeholders to identify needs in prevention research. Endocrine Society members are actively engaged in research efforts that would benefit from expanded investment in prevention research. Obesity is a major health concern in the United States, with downstream consequences such as diabetes, metabolic syndrome, and cardiovascular disease. In children, the obesity epidemic may also lead to sexual precocity. Endocrine Society members are at the leading edge of integrative efforts in neuroscience and endocrinology to understand the drivers of obesity to target developmental/pubertal effects in children and lifelong consequences in adults.



Diabetes is a priority area for prevention research. Over 30 million Americans have diabetes but over 7 million diabetic Americans remain undiagnosed. Additional screening and prevention efforts would help increase early diagnosis and treatment for the disease. An additional 84 million Americans have prediabetes, where evidence-based lifestyle interventions like the National Diabetes Prevention Program have been found to prevent or delay the progression to Type 2 Diabetes by 57% in adults under 60 and by 71% in older adults. Further efforts comparable to the “Spotlight on Research: Addressing Needs in the Prevention of HIV/AIDS” are needed to address the rise in obesity and diabetes.

Prevention of hypoglycemia is a specific priority area, and through a collaborative effort with other diabetes stakeholders, we published the Hypoglycemia Strategic Blueprint to identify actionable opportunities to reduce hypoglycemia incidence in the U.S. The Blueprint identifies six actionable domains including, “Advancing Hypoglycemia Evidence”, which lays out the need for increased funding for research at the NIH and Centers for Disease Control and Prevention to reduce gaps in evidence related to hypoglycemia prevention and management.

Major gaps in evidence exist in the following areas and should be prioritized for future funding opportunities.

- The pre-cursor of clinical indicators of severe hypoglycemia such as frequent or protracted non-severe hypoglycemia
- The short-term effects of hypoglycemia on outcomes (e.g., arrhythmias, cardiovascular events, and cerebrovascular events)
- The long-term effects of hypoglycemia (e.g. quality of life, functional status)
- The patient characteristics that increase hypoglycemia risk such as age, ethnicity, beliefs and fears of hypoglycemia, diabetes self-management education status, and therapy choices (e.g., insulin, sulfonylurea, analog insulin, or bolus insulin)

In addition to the concerns already highlighted, there are other endocrine disorders that could potentially be prevented or treated by novel and early intervention efforts. We therefore suggest that the ODP consider the following disease research areas for targeted, strategic prevention research efforts:

- Hypertension and cardiovascular disease and their origin from endocrine disease
- Epigenetic changes, such as those that may occur as a result of maternal obesity and paternal age, that lead to effects on the developing fetus that increase risks of disease in the offspring later in life
- Hormone-dependent cancers, such as prostate, breast and uterine cancer
- The effects of breastfeeding and lactation on the risk of breast cancer, obesity and diabetes
- Polycystic Ovarian Syndrome (PCOS)
- Osteoporosis
- Effects of environmental exposures on human infertility and puberty
- Diseases of aging such as muscle wasting



- Chronic consequences of disease therapy

**Strategic Priority III: Promote the use of the best available methods in prevention research and support the development of better methods.**

The Endocrine Society echoes the ODP's statement that "the best available methods in prevention research should be utilized to move the state of the science forward." To this end, the Society develops and routinely updates state-of-the-art endocrine Scientific Statements that educate scientists and clinicians on the scientific basis of disease and application to clinical practice. The following Endocrine Society scientific statements are particularly relevant to ODP's mission:

- [Diabetic Microvascular Disease: An Endocrine Society Scientific Statement](#)
- [Obesity Pathogenesis: An Endocrine Society Scientific Statement](#)
- [Screening for Endocrine Hypertension: An Endocrine Society Scientific Statement](#)
- [EDC-2: The Endocrine Society's Second Scientific Statement on Endocrine-Disrupting Chemicals](#)

The Society recognizes the need to develop funding opportunities that encourage innovative and improved approaches to prevention science. The Endocrine Society encourages the ODP to sponsor the development and adoption of large datasets that apply across populations to inform prevention strategies. The outcomes of such "big data" projects might lead to a greater understanding of phenotypic variation based on genetic and environmental, and hormonal backgrounds and result in unique prevention methodologies, ushering in an era of "personalized prevention" for diseases such as diabetes. It will also be critical for ODP to identify and encourage funding of basic science research that informs the mechanistic and hormonal basis of disease.

Finally, the Society also maintains and updates lists of qualified experts who have indicated their willingness to serve on NIH Study Sections. These expert lists are submitted to CSR to assist in their efforts. We would be happy to work with the ODP to identify endocrine subject matter experts to inform relevant prevention science methods. If our lists might be of value in your efforts with CSR, we encourage you to contact Dr. Joseph Laakso at [jlaakso@endocrine.org](mailto:jlaakso@endocrine.org).

**Strategic Priority V: Advance the understanding of prevention research, increase the availability of prevention research resources and programs, and enhance the ODP's stakeholder engagement.**

The Endocrine Society's membership of over 18,000 includes clinical, translational, and basic scientists, as well as clinicians in practice. Our membership represents a powerful force for the promotion and dissemination of evidence-based interventions for disease prevention. Our 2017 annual meeting, ENDO, was attended by over 7000 attendees from around the world. The Society's Hormone Health Network is also a trusted source for accurate information about hormone health for patients and providers.



As a scientific society with a strong annual meeting (100 years and counting) and impactful patient outreach, we can develop programming that assists in the dissemination of evidence-based prevention research. The Endocrine Society is therefore encouraged by ODP's emphasis on enhancing partnerships to promote research, dissemination, and intervention in prevention. We encourage the ODP to consider specific ways that we might partner to accomplish our shared objectives. As an example, we can assist in identifying subject matter experts and research resources that can dispel misinformation about dietary supplements.