Join the MPT development collaboration!

To support the advancement of a robust pipeline of diverse and effective multipurpose prevention technology (MPT) products serving the broad sexual and reproductive health (SRH) needs of women, the Initiative for MPTs (IMPT) — a product neutral, global collaboration that works to advance MPTs — encourages researchers and product developers to consider entering the MPT development field. Whether your experience is in SRH prevention, drug delivery, novel formulation science, engineering, or polymer chemistry, you will be joining a community of organizations who have paved the way for the promising cadre of first-generation MPT products currently undergoing clinical trials.

While the MPT field is presented with unique technical and market challenges to product development and introduction, the IMPT Secretariat, in collaboration with key partners, has developed a range of resources and tools to advise on various steps of the process – from MPT basics to complex technical considerations.

**MPTs Defined**

MPTs are an innovative class of products that deliver varied combinations of HIV prevention, other sexually transmitted infection (STI) prevention, and contraception. While the field is currently focused on products that co-formulate contraception and HIV prevention, this is not the only possible MPT combination. MPTs can also deliver HIV prevention and prevention of another STI, or contraception and a non-HIV STI, or prevention of two or more non-HIV STIs.

**Status of MPT R&D**

The only MPTs currently on the market that are effective for more than one indication are male and female condoms, but there are numerous products in development. Access the IMPT’s online product development database for a full listing of MPT products in the pipeline and a table that summarizes the pipeline by indication combination. This database is managed by the IMPT Secretariat.

**Market for MPTs**

Given that many MPTs are still not commercially available, it is difficult to fully characterize the market potential for MPTs. Nevertheless, global epidemiological data on overlapping incidences for HIV and other STIs as well as rates of unintended pregnancy illustrate a need for more efficient prevention. Moreover, a growing body of literature suggests that many women would prefer taking one multi-indication product over several single-indication products to meet their SRH prevention needs.

Based on these considerations, the key to a sustainable market for MPTs is ensuring that the design and delivery of MPT products are tailored to the different desires and daily realities of potential end-users. With this in mind, there are a range of market-related activities that should be implemented at various points along the MPT development and introduction process – the IMPT outlines and describes these in a framework tool. Notably, many first-generation MPT developers and their partners contributed to this framework and are implementing these approaches. Read a brief summary of relevant partner projects and watch a live webinar recording of some of the newest MPT end-user research projects for further inspiration.
Challenges of Developing Multi-Indication Products and Devices

Combining multiple drugs in a single product or device opens a host of complex technical challenges, from selection of the active pharmaceutical ingredient and dose, to co-formulation of drugs, to regulatory issues. These complexities notwithstanding, this is a rapidly evolving area of research that is exciting to be a part of, with a collaborative network of stakeholders strategizing and accelerating action around many of these areas.

This 2016 IMPT meeting report examines priority technical questions and challenges specific to MPTs that combine hormonal contraception and HIV prevention MPTs. Another 2016 IMPT meeting report unpacks key issues for MPT clinical trials. Other useful IMPT resources focus on issues surrounding the regulatory pathway for MPTs, including this 2013 report and this live webinar recording on bioequivalence and bioavailability. Whether to be used as guidance for a new MPT product development project or inspiration for a new partnership or collaboration within the IMPT network, these and other technical resources can be found on the IMPT’s online resource center.

Funding Opportunities

There has been an upward trend in MPT R&D investment over the past five years, with MPT-focused RFAs being released with some regularity. Most recently, the National Institutes of Health (NIH) posted several opportunities to develop MPTs: ‘Next Generation MPTs’ with applications due on March 19, 2018, and ‘Male and Female Contraceptive Development’ with applications due April 16, 2018. Please refer to the NIH postings for project requirements.

Other Useful Tools

In addition to the resources listed above, the IMPT’s generalized Target Product Profiles (TPPs) for intravaginal rings and long-acting injectables are intended to be a starting place for product developers working on those and other dosage-forms. The IMPT’s report on considerations for an MPT Strategic Evaluation Framework, the market-based complement to a TPP, could be useful as well.

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For questions or comments, please contact: IMPT@cami-health.org. The IMPT Secretariat is a project of CAMI Health, an organization dedicated to improving the health of women and girls worldwide, based in Folsom, CA, USA. CAMI Health is housed at the Public Health Institute.