

THE SECOND PARIS MANIFESTO, MAY 7, 2018

Male Contraception: Moving Forward

It is time to offer men new, reliable, safe, effective and reversible options for delaying and spacing their children, so that they can share more of the responsibility for contraception with their partners. Indeed, striking changes in men's attitudes show their increasing willingness to share contraceptive responsibility with their partner and avoid unintended fatherhood^{1,2}.

Unmet needs in family planning remain a significant challenge worldwide. As a result, women continue to bear the burden of more than 85 million unplanned pregnancies and 48 million abortions each year³. Novel male contraceptives could play a meaningful role in averting unintended pregnancies especially in settings where novel methods can attract new contraceptive users⁴

Even though male reproductive health and contraception are essential to meet the needs of millions of men and their partners, research in this field is supported by a limited number of non-profit and public organizations. The pharmaceutical industry has focused on other investment priorities, and must be reminded that men are ready to share the responsibility of contraception and assume control of their fertility². This shift is critically important when nearly half of all pregnancies world-wide are unintended.

Since the first Congress on Male Contraception organized by the International Consortium for Male Contraception (ICMC) in 2016, contraceptive methods for men are increasingly in demand with the need for new non-barrier methods becoming ever more evident. Since the Weimar Manifesto in 1997 and the First Paris Manifesto presented by the faculty panel on May 4, 2016 (now published in seven languages and available on the ICMC website^{5,6}), renewed investment and focus is imperative.

Since 2016, progress has been made with

- Advances in the development of a Nestorone®/testosterone transdermal gel entering an efficacy trial in 2018 and attracting interest from the media¹;
- Progress in clinical research on oral modified androgens that may become a male contraceptive "pill"⁷;
- Research on reversible vasectomy techniques that involves injecting medical polymers into the vas deferens to block sperm transport⁸. No-scalpel vasectomy is increasingly popular, and is less costly, and safer than female sterilization methods⁹;
- Several promising non-hormonal targets have advanced from pre-clinical to *in vivo* testing to determine whether these new chemical structures are able to selectively block specific targets in the male reproductive system.

Moreover, the U.S. National Institutes of Health has issued new competitive applications to fund research and development of male contraceptives. Partnership and collaboration between government, industry, academia and non-profit organizations is essential to drive progress.

In 2018, the pharmaceutical industry should join hands with public and non-profit organizations to support global research on male hormonal and non-hormonal contraceptives. Hormonal methods likely will be ready for general use first; these may pave the way for non-hormonal methods and their acceptance by men, probably with the encouragement of their partners. The return on investment could be high, as surveys suggest that as many as 50% of men are ready

to take a male contraceptive that is easy to use and is reversible, such as pills, implants or gels¹⁰. Utilization could be even higher if new methods were to bring additional health benefits both to men and to women, such as avoiding the side effects experienced by women with current hormonal methods.

It is now time for governments, health agencies and global policy makers to support research in male contraception as a high priority and to foster partnerships with the pharmaceutical industry, academic centers, and private philanthropic organizations to accelerate its development and introduction globally. Media also must highlight the needs of men and women and their interest in reproductive health and male contraception. Progress being made by global research centers should be accessible to the medical community, pharmaceutical partners and to the public when the latest state of the art in this field is presented. Since 2016, ICMC membership has grown and now represents 44 different countries. Furthermore, workshops organized by the ICMC and by other professional organizations at international meetings in andrology, gynecology and reproductive endocrinology have increased outreach to the medical community through presenting the latest scientific progress.

We call for action! It is “Time for Male Contraception” to benefit the health of both men and women, and the well-being of their families, communities and of our planet Earth.

Signed by: Serfaty D, Sitruk-Ware R, Wang C, Nieschlag E, Swerdloff R and the Faculty panel of ICMC2018: Anderson R, Behre H, Bouchard P, Bremner W, Gemzell-Danielsson K, Meriggiola C, Mieusset R, Page S, Sokal D, Soufir JC, Townsend J, Wolgemuth D, Wu F; with the editorial review from Blithe D, Festin M, Lee M, Long J, Sailer J.

REFERENCES

- ¹Roth MY, Shih G, Ilani N, Wang C, Page ST, Bremner WJ, Swerdloff RS, Sitruk-Ware R, Blithe DL, Amory JK. [Acceptability of a transdermal gel-based male hormonal contraceptive in a randomized controlled trial](#). Contraception. 2014;90(4):407-12.
- ²Behre HM, Zitzmann M, Anderson RA, Handelsman DJ, Lestari SW, McLachlan RI, Meriggiola MC, Misro MM, Noe G, Wu FCW, Festin MPR, Habib NA, Vogelsong KM, Callahan MM, Linton KA, and Colvard DS. [Efficacy and Safety of an Injectable Combination Hormonal Contraceptive for Men](#). J Clin Endocrinol Metab 2016; 101: 4779–4788.
- ³Guttmacher Institute. Adding It Up: [Investing in Contraception and Maternal and Newborn Health](#). Fact sheet. New York: Guttmacher Institute, 2017.
- ⁴Dorman E, Perry B, Polis CB, Campo-Engelstein L, Shattuck D, Hamlin A, Aiken A, Trussell J, Sokal D. [Modeling the impact of novel male contraceptive methods on reductions in unintended pregnancies in Nigeria, South Africa, and the United States](#). Contraception 2018; 97: 62–69
- ⁵Wang C, Sitruk-Ware R, Serfaty D. [It's time for new male contraceptives](#). Andrology. 2016;4(5):773-5
- ⁶<http://www.ic-mc.info/>
- ⁷Ayoub R, Page ST, Swerdloff RS, Liu PY, Amory JK, Leung A, Hull L, Blithe D, Christy A, Chao JH, Bremner WJ, Wang C. [Comparison of the single dose pharmacokinetics, pharmacodynamics, and safety of two novel oral formulations of dimethandrolone undecanoate \(DMAU\): a potential oral, male contraceptive](#). Andrology 2017; 5(2):278-285.
- ⁸Colagross-Schouten A, Lemoy MJ, Keesler RI, Lissner E, VandeVoort CA. [The contraceptive efficacy of intravas injection of Vasalgel™ for adult male rhesus monkeys](#). Basic Clin Androl. 2017; 27:4.
- ⁹Shropshire S. [What's a Guy To Do?: Contraceptive Responsibility, Confronting Masculinity, and the History of Vasectomy in Canada](#). Can Bull Med Hist. 2014;31(2):161-182
- ¹⁰Heinemann K, Saad F, Wiesemes M, White S, Heinemann L. [Attitudes toward male fertility control: results of a multinational survey on four continents](#). Hum Reprod. 2005;20(2):549-56