CTI Exchange

CONTRACEPTIVE R&D PIPELINE SNAPSHOT **2025–2026**

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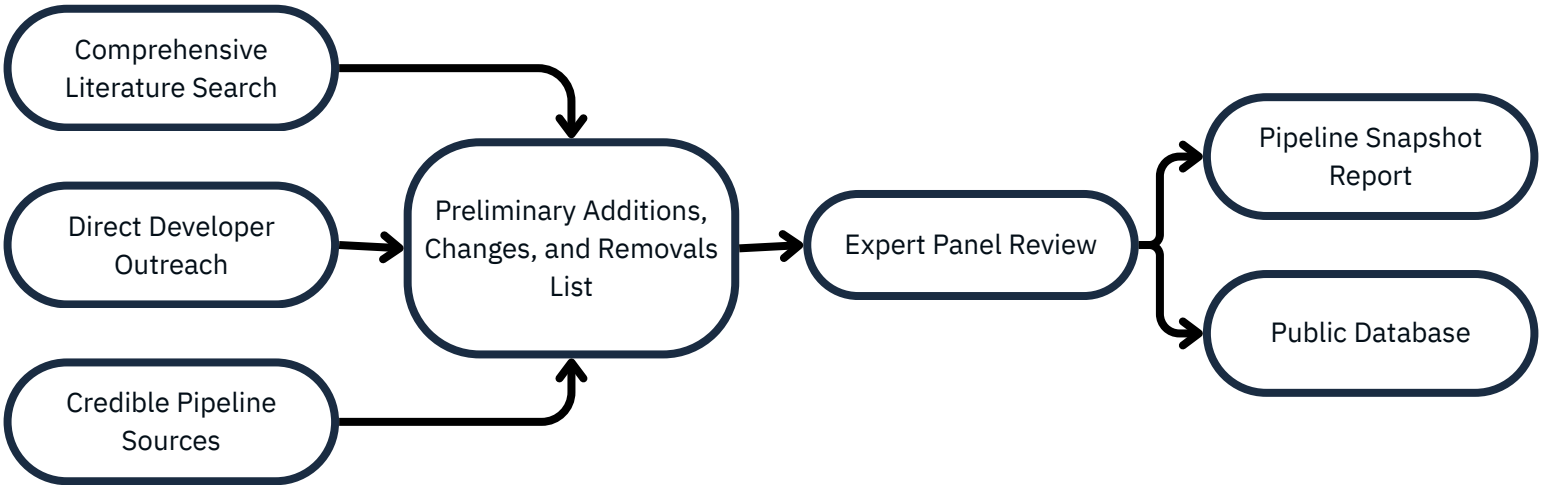
PROCESS & ACKNOWLEDGEMENTS

The Contraceptive Technology Innovation Tracker - CTI Tracker - is a free, publicly-accessible database housing information on potential contraceptive leads in early development, contraceptive products in pre-clinical and clinical development, and products with single-country regulatory approval. The CTI Tracker was originally published as "Calliope" in 2015. It was comprehensively re-developed in 2024 with relaunch in 2025 and annual review following.

The database is managed through the Contraceptive Technology Innovation Exchange, a knowledge exchange platform that brings together global partners to generate and share resources on contraceptive research, development, registration, and introduction.

ANNUAL REVIEW PROCESS



EXPERT PANEL REVIEWERS

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EXECUTIVE SUMMARY & REPORT HIGHLIGHTS

From its first iteration in 2015 to today, the CTI Tracker has been designed to promote informed scientific and financial decision-making for researchers and donors working in (or hoping to enter) contraceptive R&D through accurate, accessible, and transparent pipeline data. This report, the first annual Snapshot of the global R&D pipeline, is an initial step beyond the Tracker's original function as a pure data source and into more actionable territory.

The Tracker is a living resource reflecting the dynamic, changeable R&D environment. While this Snapshot captures a moment-in-time for contraceptive research, it also indicates key leverage points, persistent obstacles, and opportunities for growth and intervention.

NON-HORMONAL PRODUCT CONCEPTS TAKE CENTER STAGE, BUT DEVELOPMENT PATHWAYS REMAIN HIGH RISK

While the development of male methods has long focused primarily on non-hormonal APIs and mechanisms, developers of female methods have increasingly turned their attention to non-hormonal concepts in recent years. Across all products, **44% are hormonal and 55% are non-hormonal**. While this change aligns with user preference data and expanding hormone hesitancy across markets, it presents new challenges in achieving high stability, consistency, drug-loading and controlled release, and ultimately appropriate safety and efficacy outcomes, often from APIs never previously used in contraceptives. As developers and donors navigate this risk, the CTI Tracker will monitor product changes and progression.

NEW LEADS AND PRODUCTS HAVE SURGED INTO THE PIPELINE, BUT INEFFICIENCIES, BOTTLENECKS, AND GAPS IN THE PATH TO THE CLINIC CONTRIBUTE TO SIGNIFICANT ATTRITION

The Tracker's data makes one fact very clear: the lack of new contraceptive products reaching the market is not the result of limited ideas or appetite for drug development. **Seven wholly-new concepts entered the pipeline in 2025 alone, and over the last 10 years, more than 100 concepts have been initiated**. But as the Snapshot's time-in-development data shows, most products stall in pre-clinical development. While some of those products are ultimately found to be non-viable (for scientific or regulatory reasons), public information for many concepts waiting in the pre-clinical stage indicates readiness for clinical evaluation. As resources for contraceptive R&D remain constrained, the pipeline suggests possible value in earlier-stage assessment of practical viability and expanded investment in moving products into the clinic.

THERE IS MOMENTUM FOR "IMPROVED" PRODUCTS WITH NON-NOVEL DELIVERY SYSTEMS, PARTICULARLY VAGINAL RINGS, INJECTABLES, AND IUDS

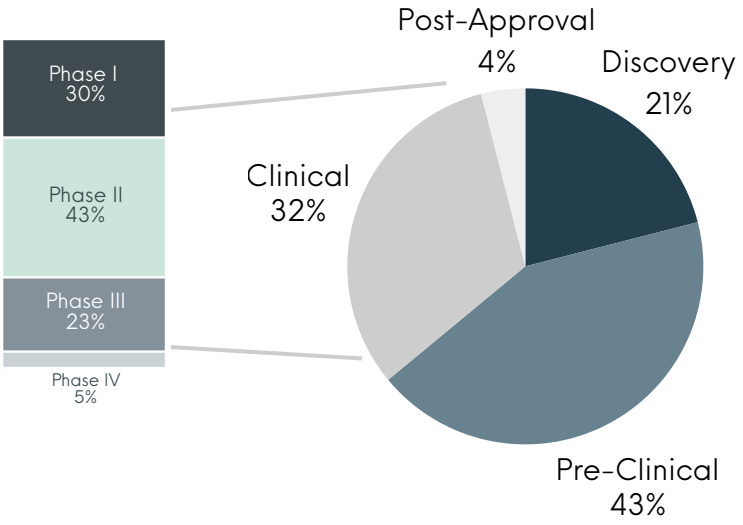
While novel methods often attract media attention and donor interest, developers have hit notable milestones for products that address scientific, financial, or logistical challenges inherent to approved and widely-used methods in the interest of improving continuation and attracting new (or returning) contraceptive users. The Snapshot tracks the entry or progression of "improved" methods through the pipeline, including longer-acting DMPA injectables, copper IUDs with controlled copper ion release, and vaginal rings that offer HIV protection alongside contraception. Product literature and public assessment of these products indicates that they are relatively low-risk and have significant market potential.

PIPELINE SNAPSHOT

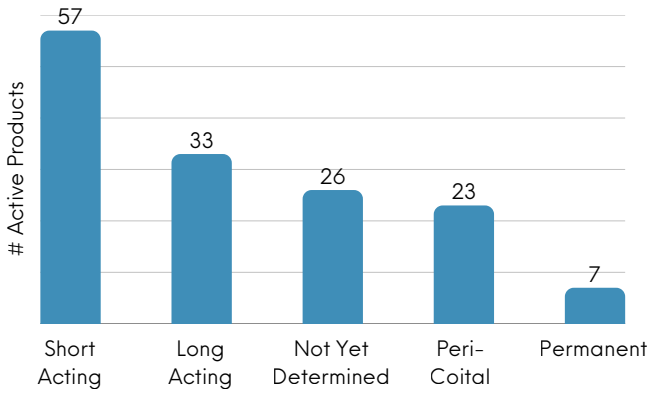
Annual review of contraceptive pipeline sources was completed between December 2025 and March 2026. All database information referenced below and throughout this report is considered up-to-date as of **April 2026**. Active development includes post-approval studies intended to support label changes, the development of generics, and the development of novel methods. Additional information on database scope and definitions can be found in the Glossary here.

136 contraceptive products under active development

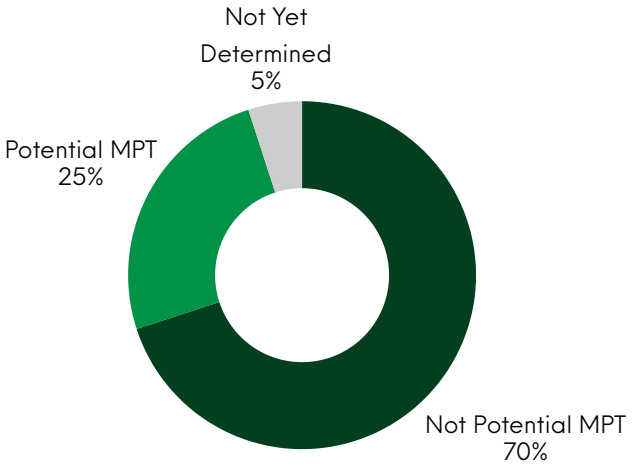
Current Development Stage



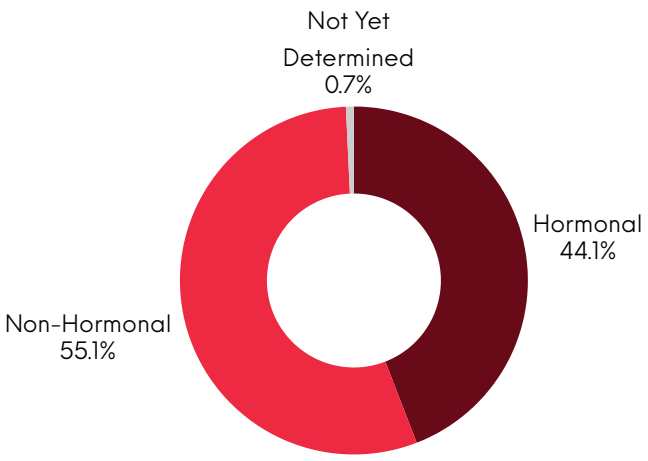
Intended Duration



Potential Use as MPT



Hormonal/Non-Hormonal



WHAT ABOUT INACTIVE PRODUCTS?

The CTI Tracker archives products with no public evidence of development within 5 calendar years of present **or** developer confirmation that development has ended. This archive, currently made up of **97 products**, is an incomplete dataset and the CTI Exchange is actively expanding documentation of leads and products that have temporarily or permanently ceased development.

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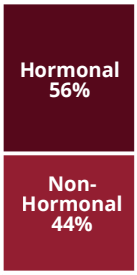
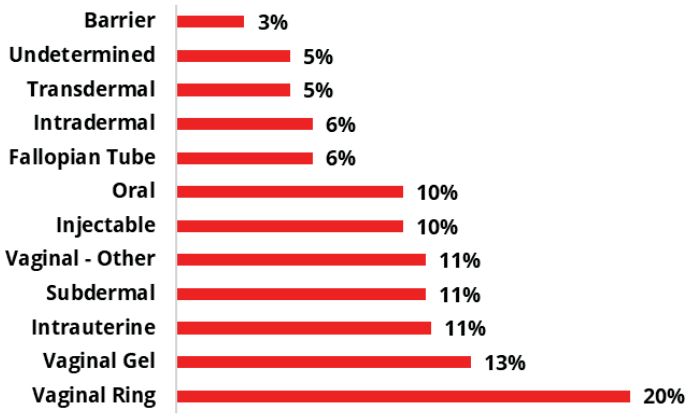
PRODUCT CATEGORIES

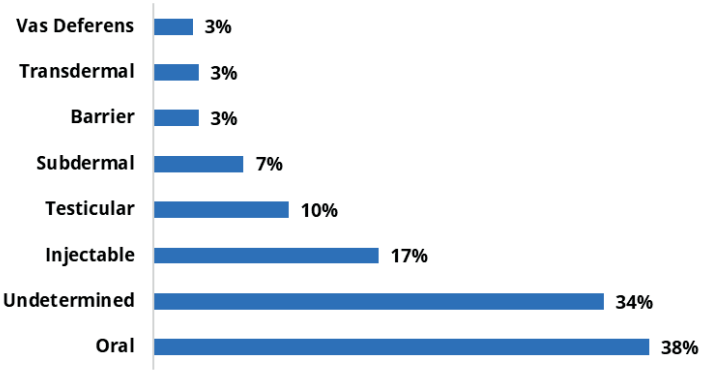
The CTI Tracker monitors the status of products under active development targeting primary contraceptive effect within either the female and male reproductive systems. Female methods under development are dominated by user-controlled vaginal methods, with a non-hormonal/hormonal split approaching parity. Male methods in development are generally earlier stage, with less definitive delivery systems, though focus on oral delivery has emerged.

102 Female Products (75%)



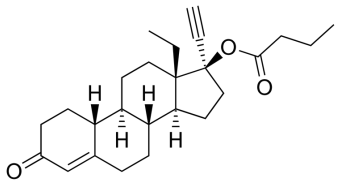


29 Male Products (21%)



5 products in the database have potential to be used by both male and female users

Highlight



Subcutaneous Levonorgestrel Butanoate

Originally developed through a joint program managed by the WHO and U.S. National Institutes of Health (NIH), levonorgestrel butanoate (LB) has been clinically evaluated for its potential use as an injectable contraceptive for more than 30 years. In 2026, NIH will initiate a Phase IIb trial intended to measure efficacy, safety, and acceptability of a subcutaneous LB formulation, leveraging the experience of the Contraceptive Clinical Trials Network.

Additional details can be found in the CTI Tracker here.

WHAT'S NEW IN 2026?

7 new products have been added to the CTI Tracker, with public information first made available in 2025

Click each product below to learn more

- CS/ODex/β-GP Injectable Hydrogel
- Dapivirine + Copper + Zinc IVR MPT
- EP055 In-Situ Forming Implant
- Hydro-Ethanol Extract of Caesalpinia Pulcherrima
- Nestorone-Only Vaginal Ring
- pH-Responsive Copper IUD
- Tenofovir + Levonorgestrel Vaginal Film

FEMALE METTHOD

MALE METTHOD

Note: 23 products with development initiation *before 2025* were also added to the Tracker in 2025-2026 due to newly available or newly identified public development information.

5 new developers appear in the CTI Tracker for the first time, including:

Benha University

India Health Action Trust

King George's Medical University

Universita di Palermo

University of Missouri

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WHAT HAS CHANGED?

The CTI Tracker undergoes an annual quality review to confirm information and update records. As part of this process, the following shifts and removals were made:

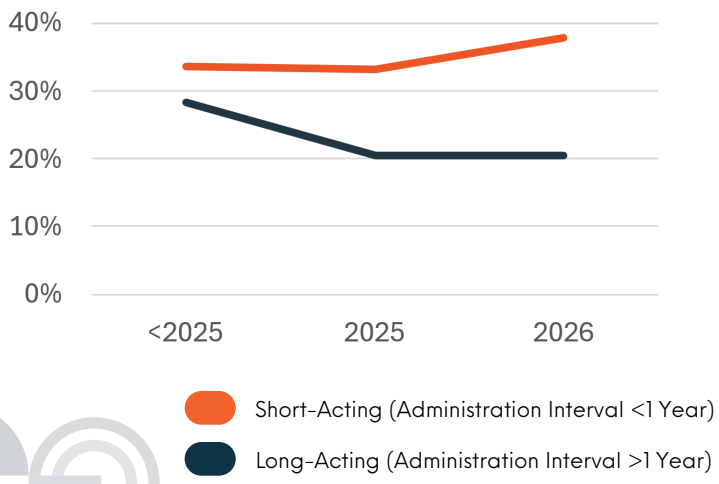
10 products were moved to the "inactive" archive because there was no credible evidence of active development in the past 5 years.

13 products were removed from the database, largely as a result of absent or inadequate public confirmation for the product's intended use as a contraceptive.

1 product, **Centchroman (Ormeloxifene)**, was moved from "inactive" to "active" to reflect renewed funding for efficacy assessment. Centchroman is actively marketed in India and provided through national family planning programs, though research is ongoing.

Due to product additions, shifts and removals, the overall compostion of the database has changed.

Between the baseline dataset (2015-2024) and 2026, the portion of methods in development classified as "short acting" has increased, mirrored by a decrease in the portion of methods classified as "long acting". Other tracked durations include "permanent" and "pericoital"; these durations experienced minimal change.



3D-Printed MPT IVRs

Highlight

The Benhabbour Laboratory at the University of North Carolina (UNC) at Chapel Hill has pioneered the development of flexible, biocompatible intravaginal rings (IVRs) intended to be loaded with a range of drugs and biologics, with a specific focus on use as multi-purpose prevention technology (MPT) for both contraception and prevention of STIs. In 2026, UNC and collaborators at North Carolina State University and CONRAD published promising early findings for a non-hormonal 3D-printed IVR MPT containing lactic acid and glycerol monolaurate.

Additional details can be found in the CTI Tracker here and here.

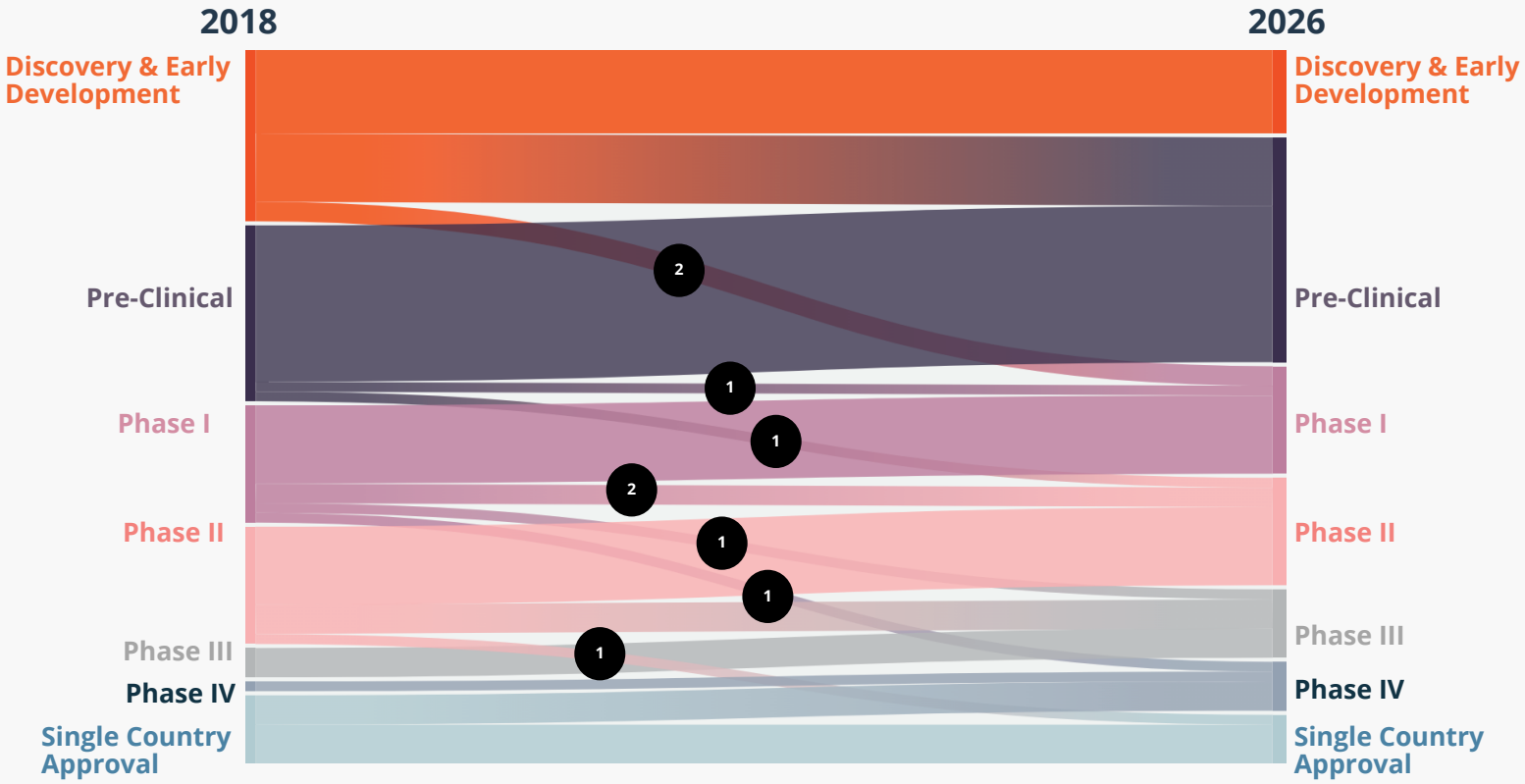
PROGRESS REPORT

The following products advanced to a **new stage of development** in 2025, marking a significant milestone in contraceptive product progress:

Click each product below to learn more

Note: *Contraceptive R&D is a non-linear process. The CTI Tracker reports the furthest stage reached by a lead or product, but movement between stages and parallel stages (e.g., conducting pre-clinical research while simultaneously initiating clinical evaluation) are common. Review the full product records for additional detail.*

Changes in Database Composition by Product Stage, 2018-2026



Numbers are provided where only 1-2 products shifted between stages. Chart does not assess changes from "active" to "inactive"

TIME IN DEVELOPMENT

This analysis of time spent in each development stage helps contextualize pipeline progress and identify where products tend to face the greatest delays. These results show that while the average time in development to date for all products tracked in the database is 9.67 years, this is skewed by new products in early development or preclinical development; for products that reach clinical development, average time in development is 13.29 years, with many spending 10+ years in the clinic.

45% of products have been in the pipeline **1-5 years**

27% of products have been in the pipeline **6-10 years**

28% of products have been in the pipeline **11+ years**

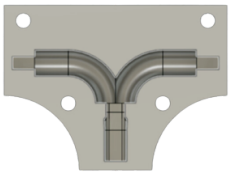
Years in Development Stage, All Products

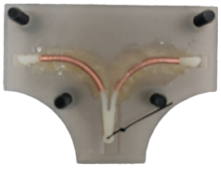
	Years in Early Development	Years in Pre-Clinical	Years in Clinical	Total Development Time to Date
MEAN	4.7	7.89	8.81	9.67
MEDIAN	3	5	6	6
MAX	44	50	34	50

Count of Products per Duration, by Development Stage

The counts below reflect only products whose development history indicates time in the given stage. For example, the table indicates that of the 85 products in the database that are in or have previously gone through the pre-clinical stage, 53% were in the stage for 1-5 years.

	Early Development (n=55)	Pre-Clinical (n=85)	Clinical (n=47)	Total Development Time
1-5 years	45 (85%)	45 (53%)	21 (49%)	**60 (45%)**
6-10 years	3 (6%)	25 (29%)	10 (23%)	**36 (27%)**
11+ Years	7 (10%)	15 (17%)	16 (28%)	**38 (28%)**





pH-Responsive Copper IUD

Highlight

Copper IUDs, the longest-acting reversible contraceptive option currently available, are commonly associated with heavier uterine bleeding and pain during menstruation. Engineers at the University of Pisa have initiated prototype evaluation of the next generation of copper IUDs, coated in a pH-responsive hydrogel intended to produce a copper ion release profile that may cause less uterine irritation without diminished contraceptive effect. Early results suggest both anionic and cationic gels may be viable for future "Smart IUD" development.

Additional details can be found in the CTI Tracker here.

Note: *Estimates count from first public development information. Early development and pre-clinical development time are likely to be* ***significantly under-estimated****, given delays in public reporting at these stages.*

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Have a contraceptive product under development?

Contact the CTI Exchange:

www.ctiexchange.org

info@ctiexchange.org

For additional information on contraceptive R&D:

NIH National Institutes of Health — Contraceptive & Infertility Target Database (CITDBase)

MCI Male Contraceptive Initiative — Non-Hormonal Reversible Male Contraceptive Database

IMPT for Reproductive Health — MPT Product Development Database

Impact Global Health — Global Health R&D Funding Data Portal