



## The MPT Microbicides and Devices Matrix

The MPT Microbicides and Devices Matrix illustrates both available and emerging multipurpose prevention technologies for sexual and reproductive health. This resource outlines indications and other product information and provides links for further information on each multipurpose prevention technology. This matrix also includes male circumcision, an important MP procedure. The products are displayed according to availability and closeness to realization.

Inclusion in the MPT Microbicide and Devices Matrix requires that products demonstrate, through preclinical or clinical studies, successful indication against two or more of the prevention targets listed in the matrix. Advanced Preclinical and Clinical technologies, stage P2 and above, must meet one or more of the following criteria:

- GMP formulated product
- GMP manufactured drug or device
- GLP toxicology study
- Primate safety and/or efficacy study
- Prevent pathogen(s) transmission or pregnancy in at least two animal models.

The World Health Organization, Contraceptive Technology, and Centers for Disease Control were used as the primary sources to evaluate specific product information related to regulatory issues, product indications, and other product information along with the sites linked to specific product pages. The information contained in the matrix was reviewed by experts across the field to ensure accuracy. If you have any further information to add, please contact us at [cami@cami-health.com](mailto:cami@cami-health.com).

For more information about specific products listed in the MPT matrices, we recommend referring to the following URL links:

- <http://www.clinicaltrials.gov>
- <http://www.cervicalbarriers.org/products/>
- <http://dev.it-insights.com/avac/CandidateProductProfile.aspx>

*The MPT Product Mapping matrix is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of PHI/CAMI and partners and do not necessarily represent the views of USAID or the United States government.*



# MPT Microbicides and Devices Matrix

Fall 2011

STAGE OF DEVELOPMENT		PREVENTION TARGET
<i>Preclinical Studies</i>	<i>Clinical Studies</i>	E = Evidence supports product effectiveness in clinical trial (including partial protection)
P1 = Laboratory Studies	C1 = Phase I Trials	R = Preliminary Research is encouraging
P2 = Animal Studies	C2 = Phase II Trials	I = Intended prevention target; limited if any data to support; future studies planned
	C3 = Phase III Trials	
A = Officially approved by FDA or other regulatory agency		

Product Name	Active Pharmaceutical Ingredient	Delivery System	Developer/ Sponsor	Funding Source	Stage of Development	PREVENTION TARGET												
						Pregnancy	HIV	BV	Candida	Chlamydia	Gonorrhea	HPV	HSV	Syphilis	Trichomoniasis	UTI		
Cupid Female Condom	Barrier Device	Condom	Cupid Limited		A	R	I					I		I				
FC1®/Reality Female Condom (polyurethane female condom)	Barrier Device	Condom	Female Health Company (FHC)		A	E	R					R	R		R			
FC2® (synthetic nitrile female condom)	Barrier Device	Condom	Female Health Company (FHC)		A	E	R					R	R		R			
Male Condom (polyurethane or latex, <u>without</u> spermicide)	Barrier Device	Condom	[various mfrs]		A	E	E					E	E		R			
Natural Sensation Panty Condom®	Barrier Device	Condom	Natural Sensations, Colombia		A	R	I					I	I		I			
Phoenurse Polyurethane Female Condom	Barrier Device	Condom	Tianjin Condbao Medical Polyurethane Tech.Co., Ltd.		A	E	R					R	R		R			
Reddy Female Condom	Barrier Device	Condom	Medtech Products, Ltd., Chennai, India		A	R	I					I	I		I			
Woman's Condom	Barrier Device	Condom	CONRAD/USAID, NICHD, PATH		A	R	I					I	I		I			
Lactin-V	Lactobacillus Crispatus	Capsule/ Suppository	Osel, Inc; UCSF Bixby Center	NIH, Private Donors	C2		I	R										R
Tenofovir (TFV) 1% Gel	PMPA	Gel	CAPRISA, CONRAD, FHI 360, Gilead, MTN	DAIDS; Dept. of Science & Technology, South Africa; USAID	C2b		E								E			
VivaGel®	SPL7013 (Sulphonated Dendrimer)	Gel	Starpharma	Starpharma	C2	R	R	R/E						R	R			

Product Name	Active Pharmaceutical Ingredient	Delivery System	Developer/ Sponsor	Funding Source	Stage of Development	PREVENTION TARGET														
						Pregnancy	HIV	BV	Candida	Chlamydia	Gonorrhea	HPV	HSV	Syphilis	Trichomoniasis	UTI				
Duet™	Barrier Device	Barrier Device	ReProtect	DMID/NIAID, MPI	C1	R	R													
VersElle™	Barrier Device	Barrier Device	FHI 360, RHRU		C1	R	R	R/I	R											
Bioengineered Lactobacillus (Cyanovirin-N)/ Mucocept	Cyanovirin-N	Capsule/ Suppository	Osel, Inc.	IPM, NIAID	P2		R	R			I									
Glycerol Monolaurate (GML)	Immune Modulator	Gel	Ashley Haase, U. Minn.	No funding beyond initial grant that generated publication	P2		I			I										
mapp66	monoclonal antibodies	Vaginal Ring, Film	Mapp Biopharmaceutical, Inc.	NIAID/DAIDS	P2		R								R					
MIV-150/Zinc Acetate Ring	MIV-150 and Zinc Acetate	Vaginal Ring	Population Council		P2		R								R					
PC-707 Gel	Zinc Acetate	Gel	Population Council	NIH, SIDA, SMFA, USAID	P2		R								R					
PC-1005 Gel	Zinc Acetate and MIV-150	Gel	Population Council	NIH, SIDA, SMFA, USAID	P2		R								R					
Tenofovir/Levonorgestrel Ring	PMPA ; Levonorgestrel+C33	Vaginal Ring	CONRAD, University of Utah		P2	R	R													
Dual Ring 1	MIV-150/Zinc Acetate/ Levonorgestrel	Vaginal Ring	Population Council	USAID	P1	R	R								R					
Dual Ring 2	Dapivirine and Levonorgestrel	Vaginal Ring	IPM	IPM	P1	R	R													
MIV-150/Zinc Acetate/Levonorgestrel Gel	MIV-150/Zinc Acetate/ Levonorgestrel	Gel	Population Council		P1	R	R								R					
SILCS + Microbicide	Barrier Device	Diaphragm	CONRAD, PATH, Queens University of Belfast, USAID	USAID	P1	E	I													
Origami Female Condom	Barrier Device	Condom	Strata various product design	NIH	Unknown	R	I			I	I			I						

**MPT Microbicides and Devices Matrix, Fall 2011**

**WORKING DOCUMENT:** For more information contact: [cami@cami-health.org](mailto:cami@cami-health.org)

**Environmental Scan of Emerging and Available Multipurpose Prevention Technologies (MPTs)**

Summary of MPT Microbicides and Devices  
(WORKING DOCUMENT)



Initiative for Multipurpose Prevention Technologies

**Examples of MPTs in Development by Prevention Targets**

<b>Pregnancy &amp; HIV</b>			
<b>Product Name</b>	<b>Delivery System</b>	<b>Developer/Sponsor</b>	<b>Stage of Development</b>
Duet™	Barrier Device	ReProtect	C1
Tenofovir/Levonorgestrel Ring	Vaginal Ring	CONRAD, University of Utah	P2
Dual Ring 1	Vaginal Ring	Population Council	P1
Dual Ring 2	Vaginal Ring	IPM	P1
SILCS	Diaphragm+Drug	PATH, Queens University Belfast, CONRAD	P1

<b>HIV &amp; other STIs</b>			
<b>Product Name</b>	<b>Delivery System</b>	<b>Developer/Sponsor</b>	<b>Stage of Development</b>
Lactin-V	Capsule/ Suppository	Osel, Inc; UCSF Bixby Center	C2
Tenofovir (TFV) 1% Gel	Gel	CAPRISA, CONRAD, FHI, Gilead, MTN	C2b
Bioengineered Lactobacillus (Cyanovirin-N))/ Mucocept	Capsule/ Suppository	Osel, Inc.	P2
Glycerol Monolaurate (GML)	Gel	Ashley Haase, U. Minn.	P2
mapp66	Vaginal Ring, Film	Mapp Biopharmaceutical, Inc.	P2
MIV-150/Zinc Acetate Ring	Vaginal Ring	Population Council	P2
PC-707 Gel	Gel	Population Council	P2
PC-1005	Gel	Population Council	P2

<b>Pregnancy, HIV &amp; other STIs</b>			
<b>Product Name</b>	<b>Delivery System</b>	<b>Developer/Sponsor</b>	<b>Stage of Development</b>
VivaGel®	Gel	Starpharma	C2
VersElle™	Barrier Device	FHI, RHRU	C1
MIV-150/Zinc Acetate/Levonorgestrel Gel	Gel	Population Council	P1

<b>STAGE OF DEVELOPMENT</b>		<b>PREVENTION TARGET</b>
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## Environmental Scan of Emerging and Available Multipurpose Prevention Technologies (MPTs)

Summary of MPT Microbicides and Devices  
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Initiative for Multipurpose Prevention Technologies

### Low Hanging Fruit

MPTs currently in clinical trials.

Product Name	Delivery System	Stage of Development	PREVENTION TARGET										
			Pregnancy	HIV	BV	Candida	Chlamydia	Gonorrhea	HPV	HSV	Syphilis	Trichomoniasis	UTI
Lactin-V	Capsule/ Suppository	C2		I	R								R
Tenofovir (TFV) 1% Gel	Gel	C2b		E						E			
VivaGel®	Gel	C2	R	R	R/E				R	R			
Duet™	Barrier Device	C1	R	R									
VersElle™	Barrier Device	C1	R	R	R/I	R							

### New and Novel MPTs

These include gels, tablets, capsules/suppositories and combination rings

Product Name	Delivery System	Developer/Sponsor	Stage of Development	Pregnancy	HIV	STIs
Lactin-V	Capsule/ Suppository	Osel, Inc; UCSF Bixby Center	C2		x	x
Tenofovir (TFV) 1% Gel	Gel	CAPRISA, CONRAD, FHI, Gilead, MTN	C2b		x	x
VivaGel®	Gel	Starpharma	C2	x	x	x
Bioengineered Lactobacillus (Cyanovirin-N))/ Mucocept	Capsule/ Suppository	Osel, Inc.	P2		x	x
Glycerol Monolaurate (GML)	Gel	Ashley Haase, U. Minn.	P2		x	x
mapp66	Vaginal Ring, Film	Mapp Biopharmaceutical, Inc.	P2		x	x
MIV-150/Zinc Acetate Ring	Vaginal Ring	Population Council	P2		x	x
PC-707 Gel	Gel	Population Council	P2		x	x
PC-1005	Gel	Population Council	P2		x	x
Tenofovir/Levonorgestrel Ring	Vaginal Ring	CONRAD	P2	x	x	
Dual Ring 1	Vaginal Ring	Population Council	P1	x	x	
Dual Ring 2	Vaginal Ring	IPM	P1	x	x	
MIV-150/Zinc Acetate/Levonorgestrel Gel	Gel	Population Council	P1	x	x	x
SILCS	Diaphragm	PATH, Queens University Belfast, CONRAD	P1	x	x	

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