

# Atlas of Queer Anatomy

Atlas of  
Queer  
Anatomy





Chapter 1

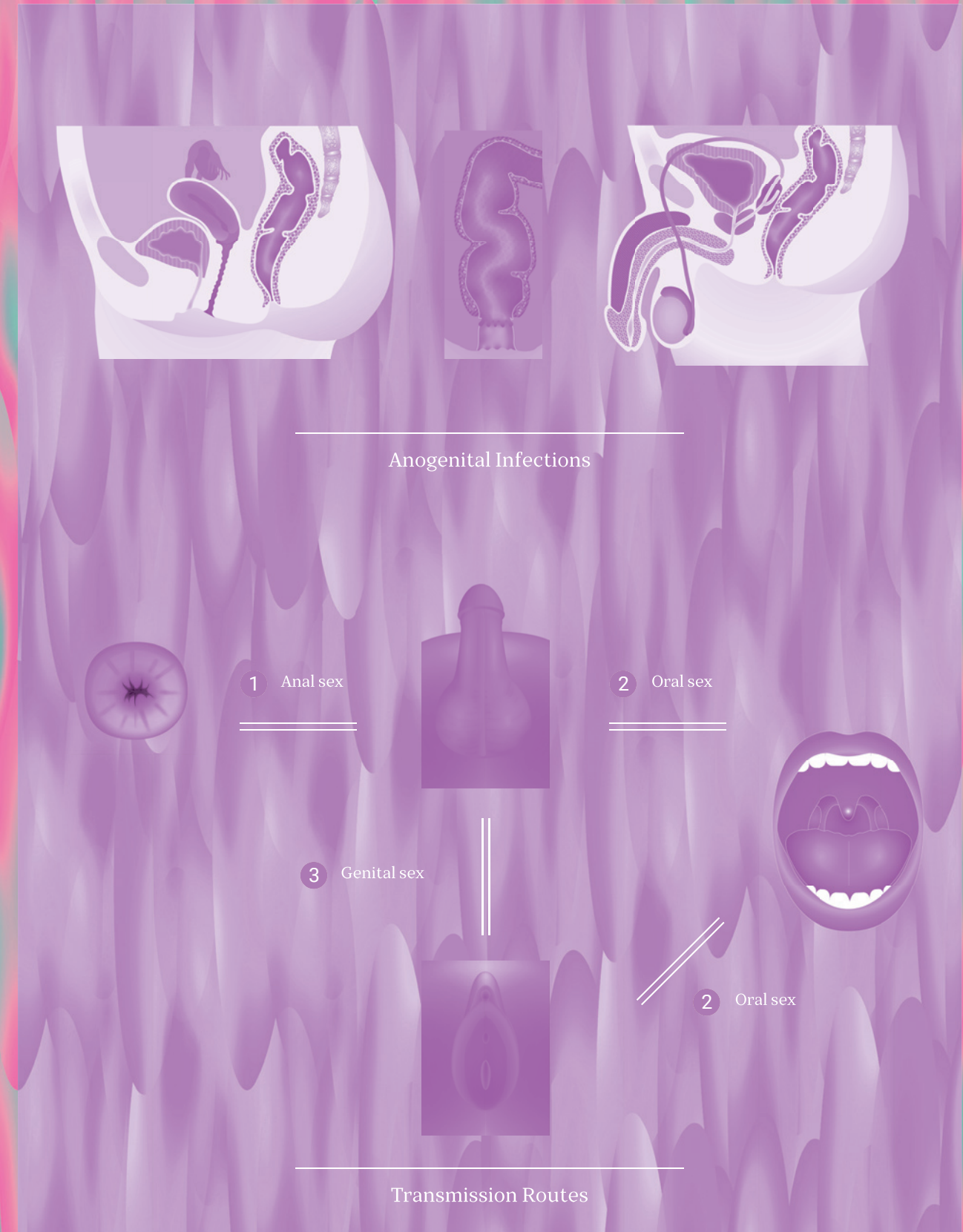
# *Chlamydia*



## Chlamydia

Chlamydia is an infection of the bacterium *Chlamydia trachomatis*, which can only live and reproduce inside host cells. In this picture you can see the bacteria as small granules inside an inclusion body. Eventually the infected host cell dies, bursts open and the bacteria are set free to infect neighboring host cells.

Chlamydia is the main cause of blindness in low and middle income countries. Chlamydia can also be sexually transmitted and cause infections of the mucosal linings of the genitals and rectum. In many cases these anogenital infections go unnoticed but can lead in some to late complications like infertility in women. There is an aggressive chlamydia variant that causes a severe disease called lymphogranuloma venereum. Lymphogranuloma venereum mostly affect gay and bisexual men and transgender persons who have sex with other men or transgender persons and causes painful infections of the anal canal. (see also under p. 8, *An Alternative Route for the Transmission of Lymphogranuloma Venereum*).



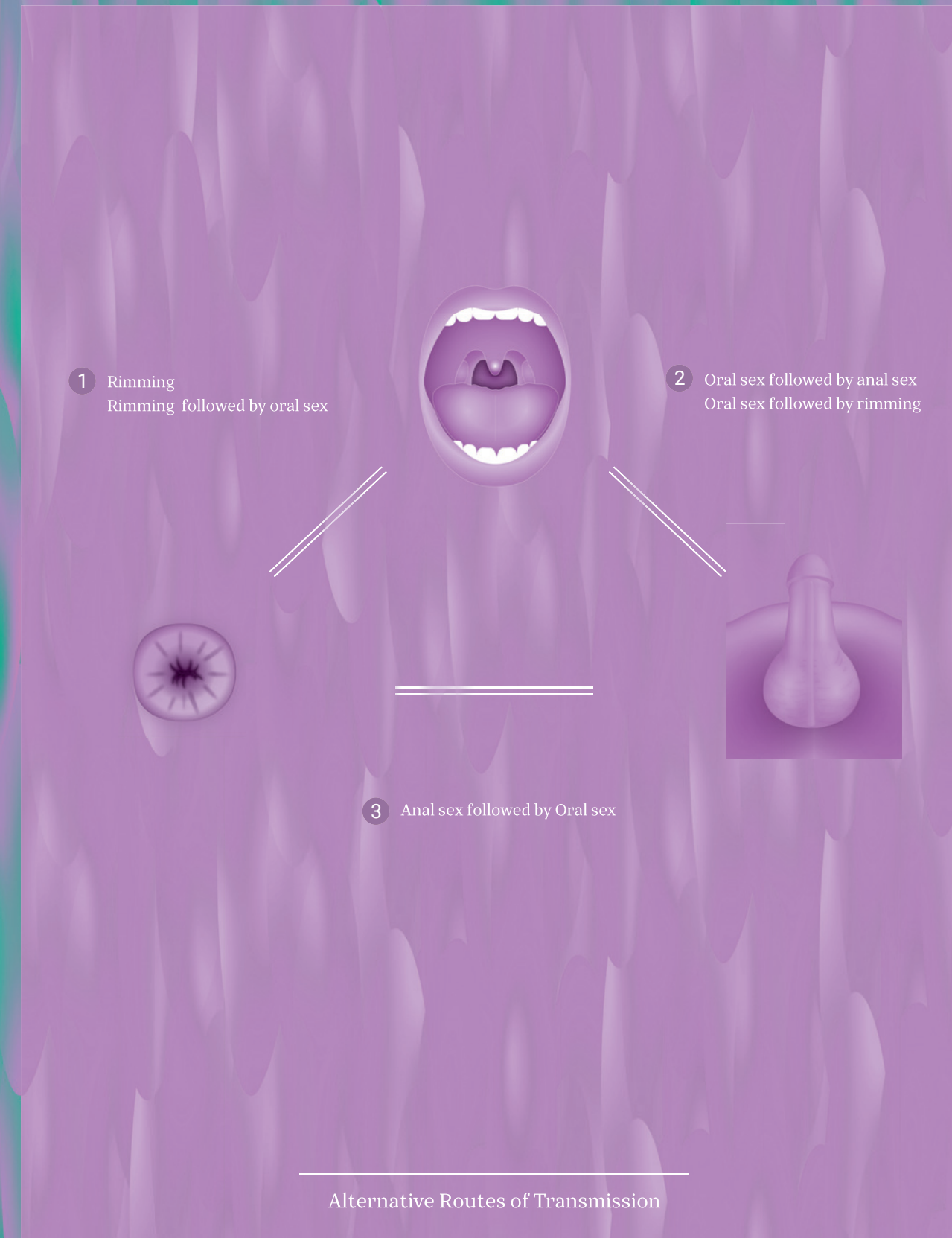


## An Alternative Route for the Transmission of Lymphogranuloma Venereum

Throughout millions of years, *Chlamydia trachomatis* evolved from a commensal inhabitant of the gastro-intestinal tract microbiome to become the pathogen causing eye infections and sexually transmitted infections nowadays. This is an example of an often-seen evolutionary process where microorganisms in their fight for survival, adapt to their host and to their ever-changing environment. This process exemplifies the blurring boundaries of an ally that is part of the hosts' protection on one side, and a bug that causes disease on the other side. The human microbiome consist of billions of micro-organisms that live in symbiosis with us on the grounds of mutual benefit.

Lymphogranuloma venereum affects gay and bisexual men and transgender persons who have sex with other men or transgender persons.

*Chlamydia*





*Chlamydia*

Most cases develop a painful and destructive ano-rectal infection; yet, we rarely see genital infections. This leads to the assumption that ano-genital sex (buttfucking) is not the only, or most important route of transmission. Oral-anal sex (rimming) might be an alternative route for the transmission of chlamydia. Rimming someone with anorectal lymphogranuloma exposes the oral cavity of the partner to chlamydia. Subsequently the bacterium can spread via the gastro-intestinal tract to cause an infection of the anal canal in the partner.

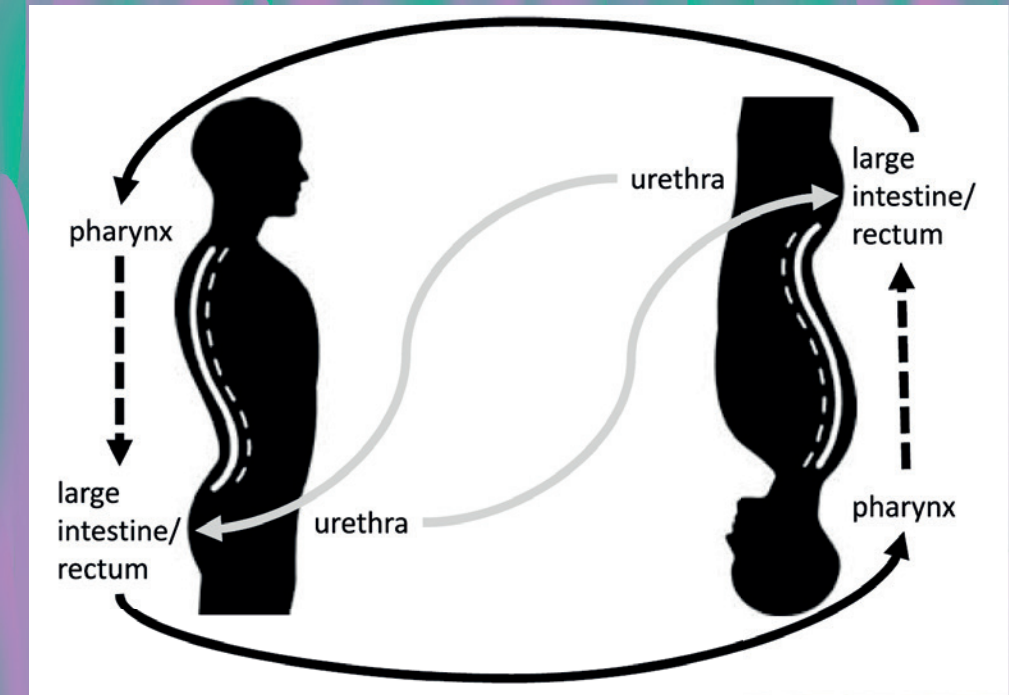


Fig 1. Depiction of proposed transmission patterns of lymphogranuloma venereum in men who have sex with men. Genitoanal transmission occurs between men (grey arrows), but ano-oral infection may also occur via oral sex or mechanical transmission (black solid arrows). Oral infection may result in clinical or subclinical pharyngitis, and the organisms may pass through the gastrointestinal tract to the large intestine and rectum, where they can be shed (dashed black arrows). Adapted from Rank and Yeruva. 27 Icon made by Freepik in people from [www.flaticon.com](http://www.flaticon.com). From: The Enigma of Lymphogranuloma Venereum Spread in Men Who Have Sex With Men: Does Ano-Oral Transmission Plays a Role? de Vries HJ. Sex Transm Dis. 2016 Jul;43(7):420-2



Many of the Netter's depictions in his atlas of anatomy are quite heteronormative, and solely white and Western oriented. This reflects the general perception of Western medicine of his generation. Alternative lifestyles, sexual- or gender orientations, the variety of cultural and ethnic backgrounds, none of these aspects were reflected in Netter's original work.

Sex is a life's necessity and source of universal pleasure, bonding and identity. Netter discussed sexuality only in the context of reproduction or sexually transmitted diseases; and by doing so medicalized and pathologized sexual contact.

In the queer atlas we try to represent the spectrum of sex in a positive way, outside the narrow focus of heteronormative sexuality. We cross the boundaries of what Gayle Rubin described as the "good" charmed circle into the "dirty or bad outer limits". Sex can be enjoyed in many different ways, and as long as there is mutual consent of all parties involved the boundaries are unnecessary, artificial and exclude essential parts of society.

Chlamydia

## THE SEX HIERARCHY

Perhaps the most famous image from Rubin's paper is one where she illustrates the sex hierarchy that cultures, religions, laws, psychiatry, mass media, etc. enforce between acceptable and unacceptable sex. Of course, different groups draw the line in different places, and where the line is placed shifts over time. However, the underlying assumption that we can delineate good and bad sex remains.

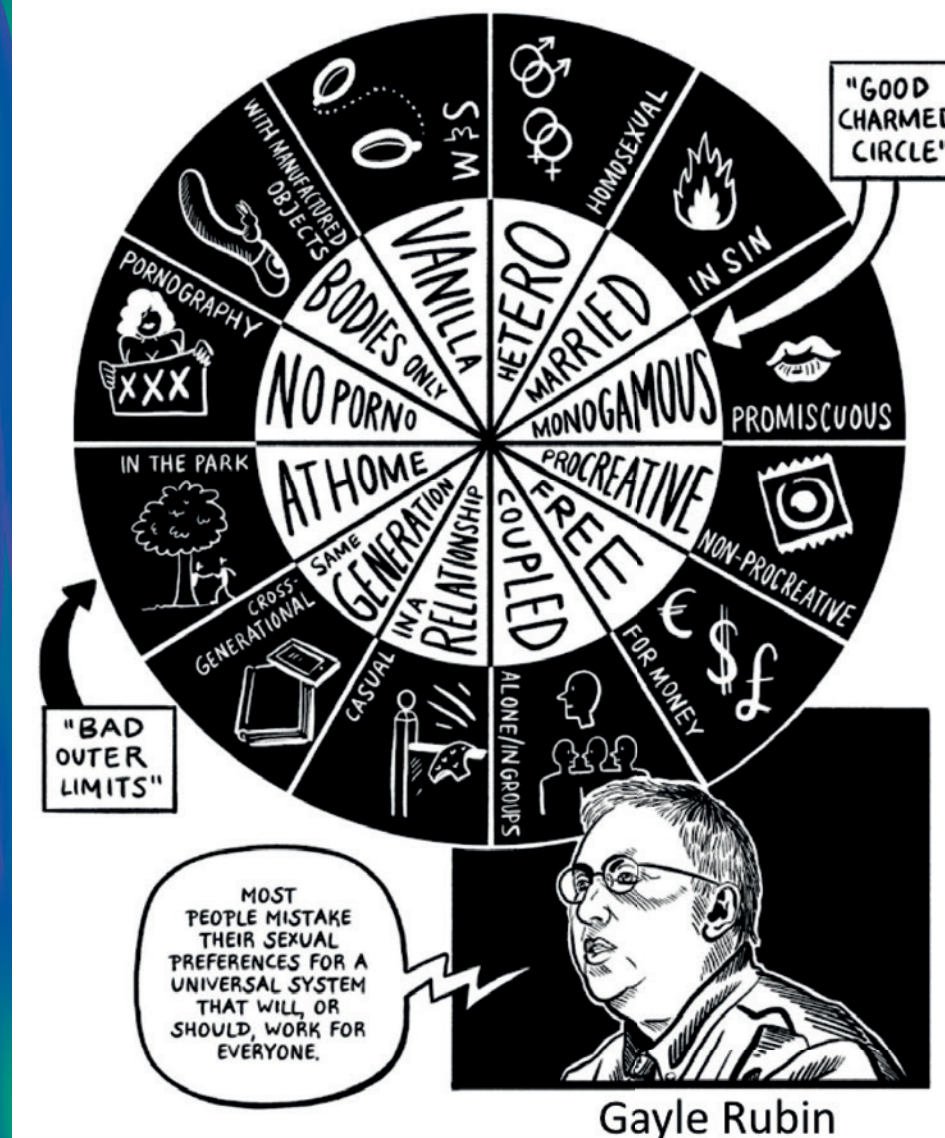


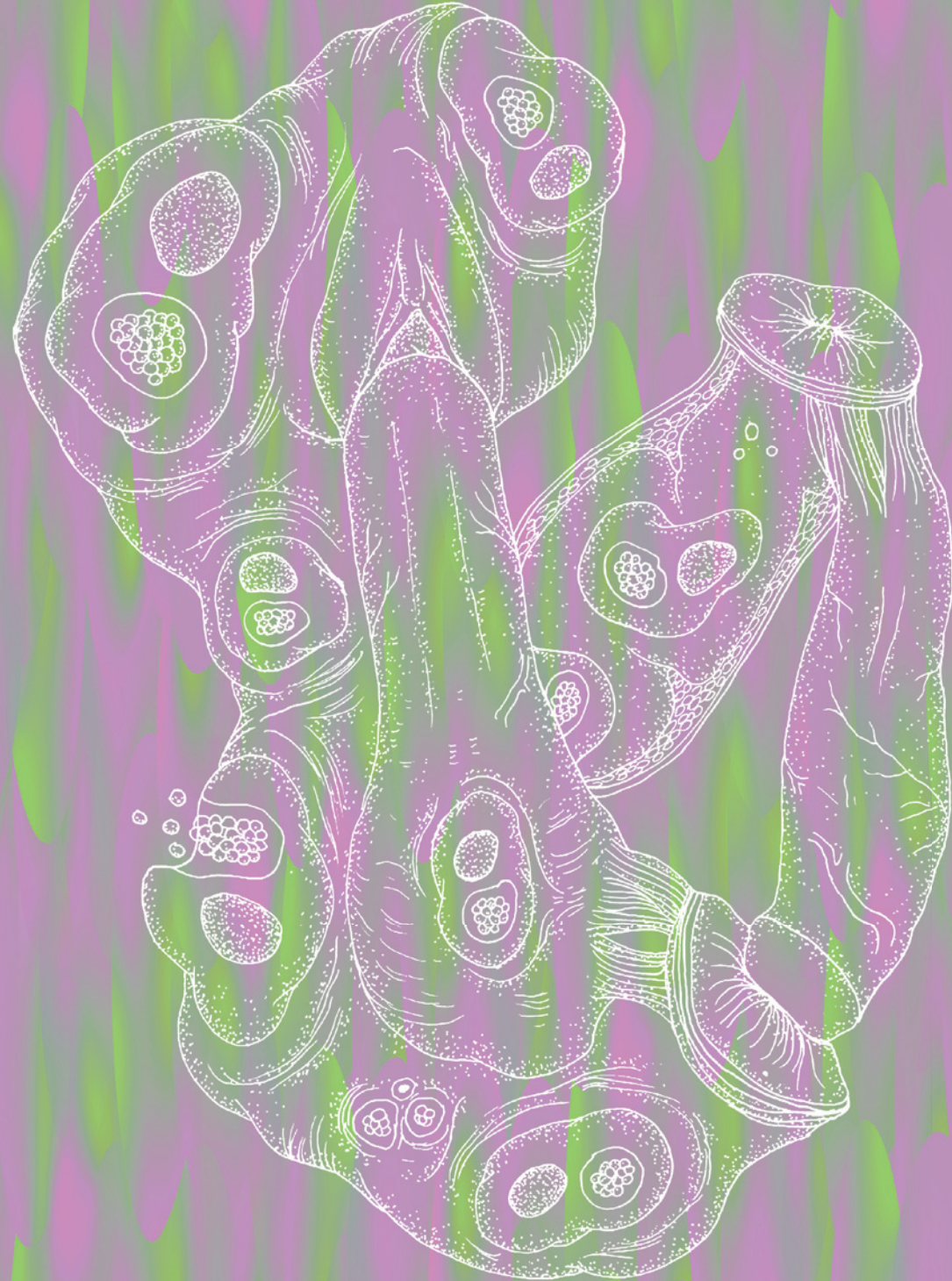
Fig 2. Meg John Barker(Author), Jules Scheele(Illustrator). (2016) "Queer: A Graphic History": *The Sex Hierarchy*.



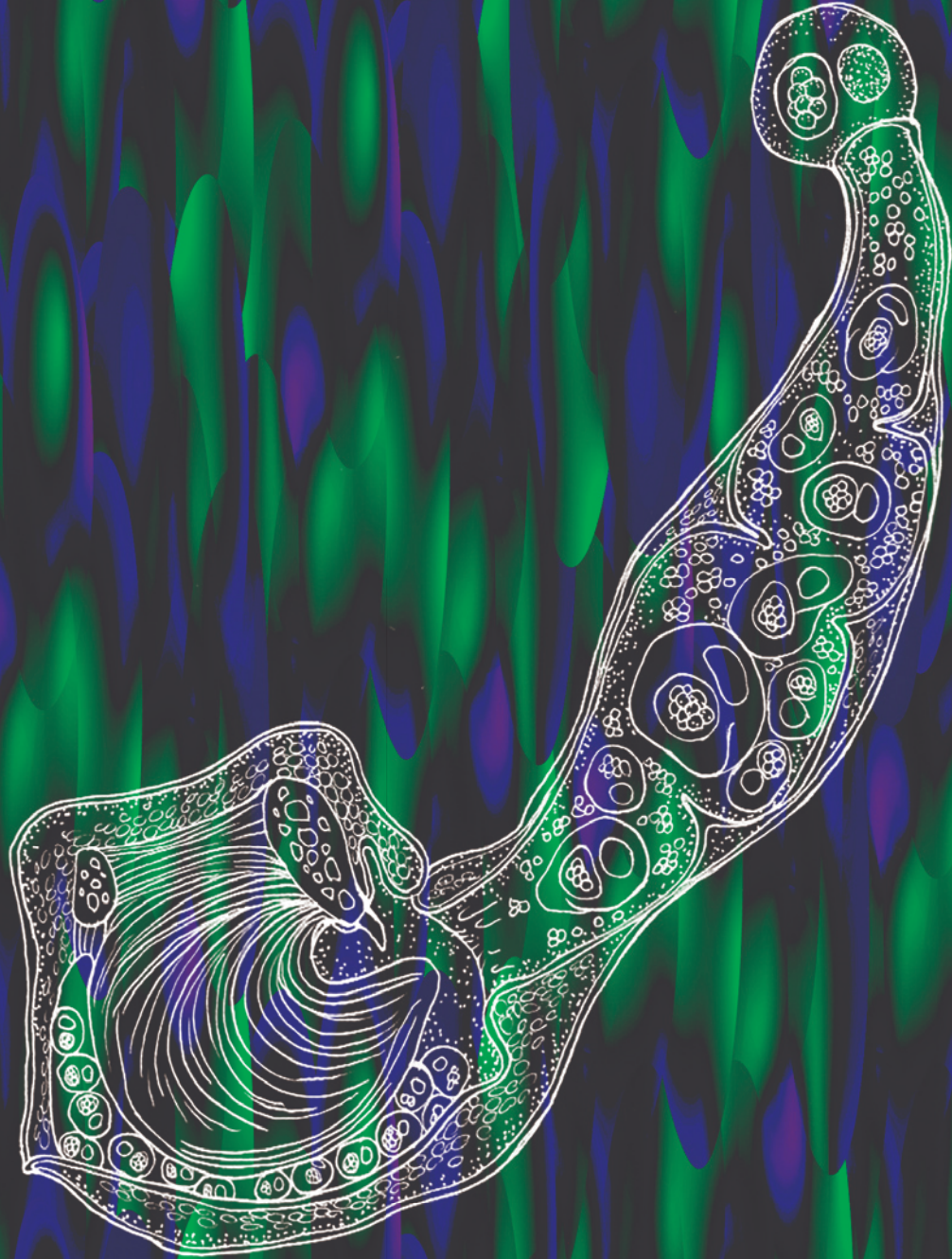


*Chlamydia*





*Chlamydia*



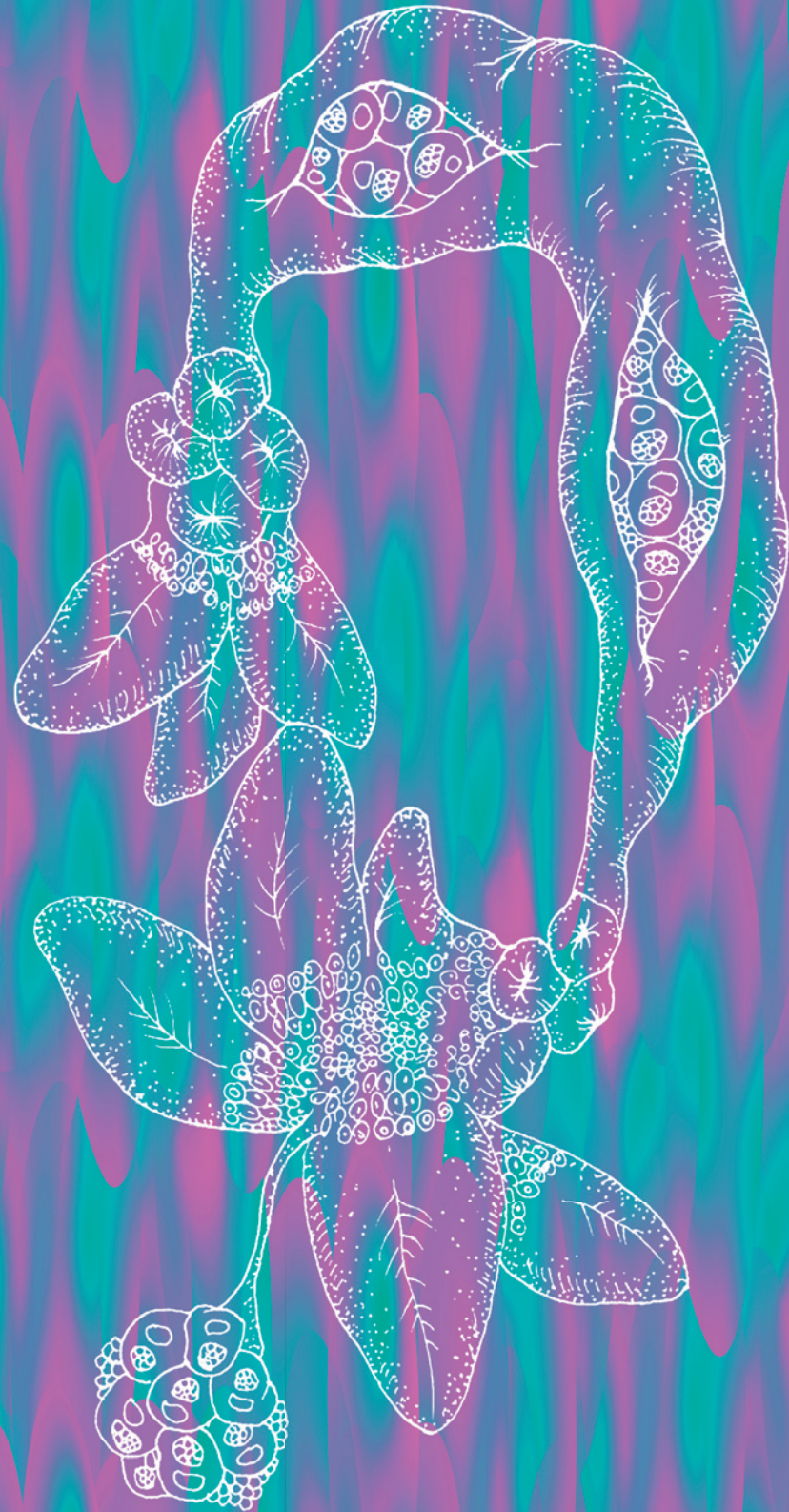


Chapter 1

# Gonorrhea

2

*Chlamydia*

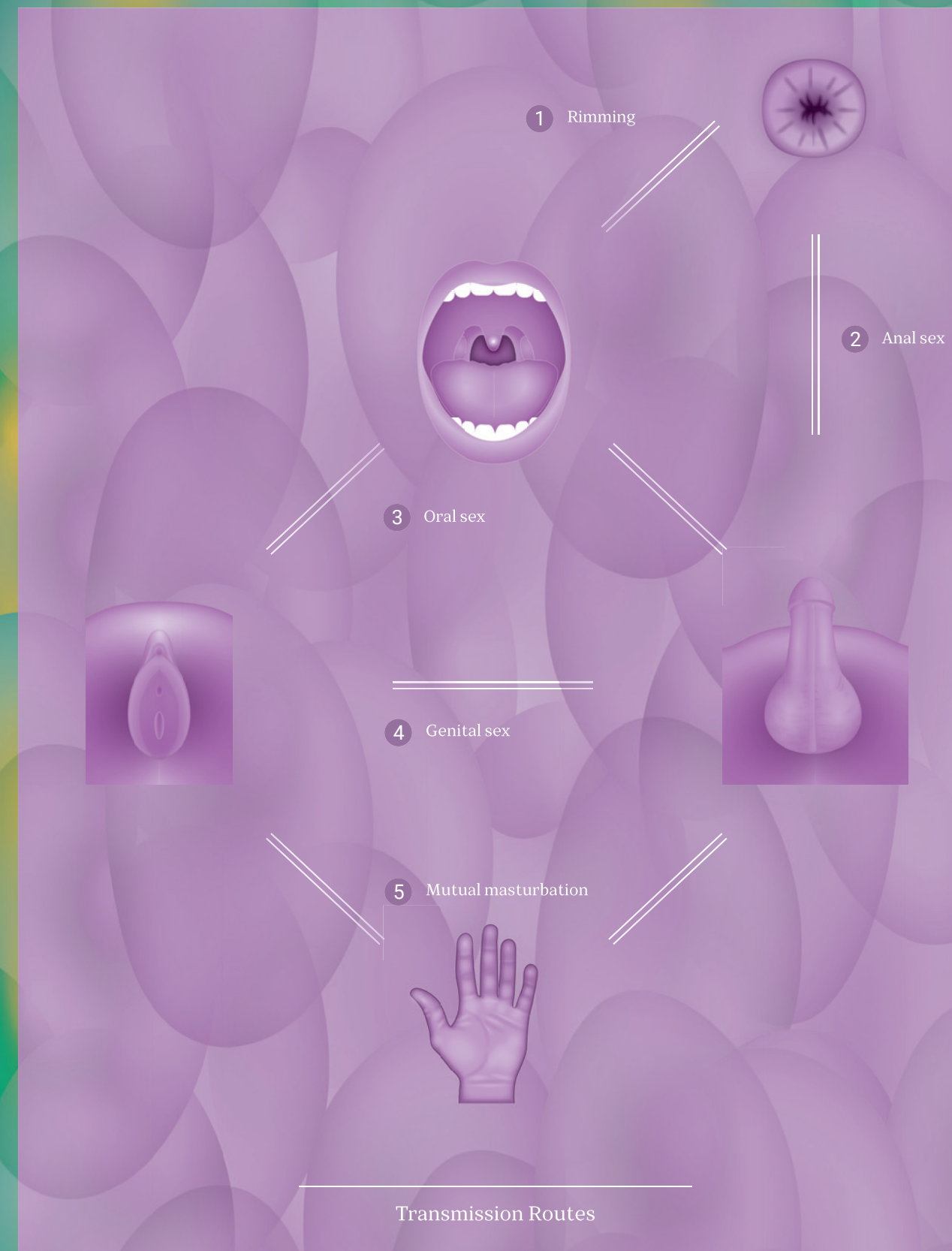




## Gonorrhea

Gonorrhoea is caused by a bacterium called *Neisseria gonorrhoeae* that attaches to mucosal tissues of the genitalia, the anal canal and the throat. In about half of the cases it leads to localized symptoms such as discharge, pain, redness. Under rare conditions it can cause a systemic infection when it enters the bloodstream. If not treated timely, it can lead to irreversible damage such as scarring, strictures, and infertility.

Gonorrhoea is highly infectious via genital contact but also via mutual masturbation and all kinds of foreplay. Since it can infect many body cavities it is important to take the spectrum of human sexual acts in all its abundance and variety into account. When it came to sex, Netter took a binary approach and only considered genitals (penis and vagina) in the sexual transmission of infections. Yet, there is so much more to consider when gonorrhoea is at stake: oral, anal, genital sex in any combination, the use of toys & dildo's, fingers, feet & hands, and the exchange of all sorts of bodily fluids like urine & faeces. As said, the queer atlas crosses the boundary between Gayle Rubins "charmed" circle and the "bad outer limits". Territories Netter had never dreamed of exploring!





## The Fear of Falling Dominoes.

Persons living queer life styles are often confronted with stigma and fear. This is addressed by Gayle Rubin in another concept, called the domino theory, which is build upon the “charmed circle”. People consider themselves part of the charmed circle, and driven by fear or disgust reinforce the line between acceptable and unacceptable sex, believing it to stand between order and chaos. In Gayles words: *“Instead of judging sexual tastes according to an arbitrary line, we should emphasise the way partners treat one another, the level of mutual consideration, the presence or absence of coercion, and the quality of the pleasures they provide.”* Queer theory and the queer anatomy atlas question the binary approach of sexuality, gender and the many roles imposed by society, governments, religion, science and medicine.

Gonorrhea

### THE DOMINO THEORY

People reinforce this line between acceptable and unacceptable sex, believing it to stand between order and chaos.

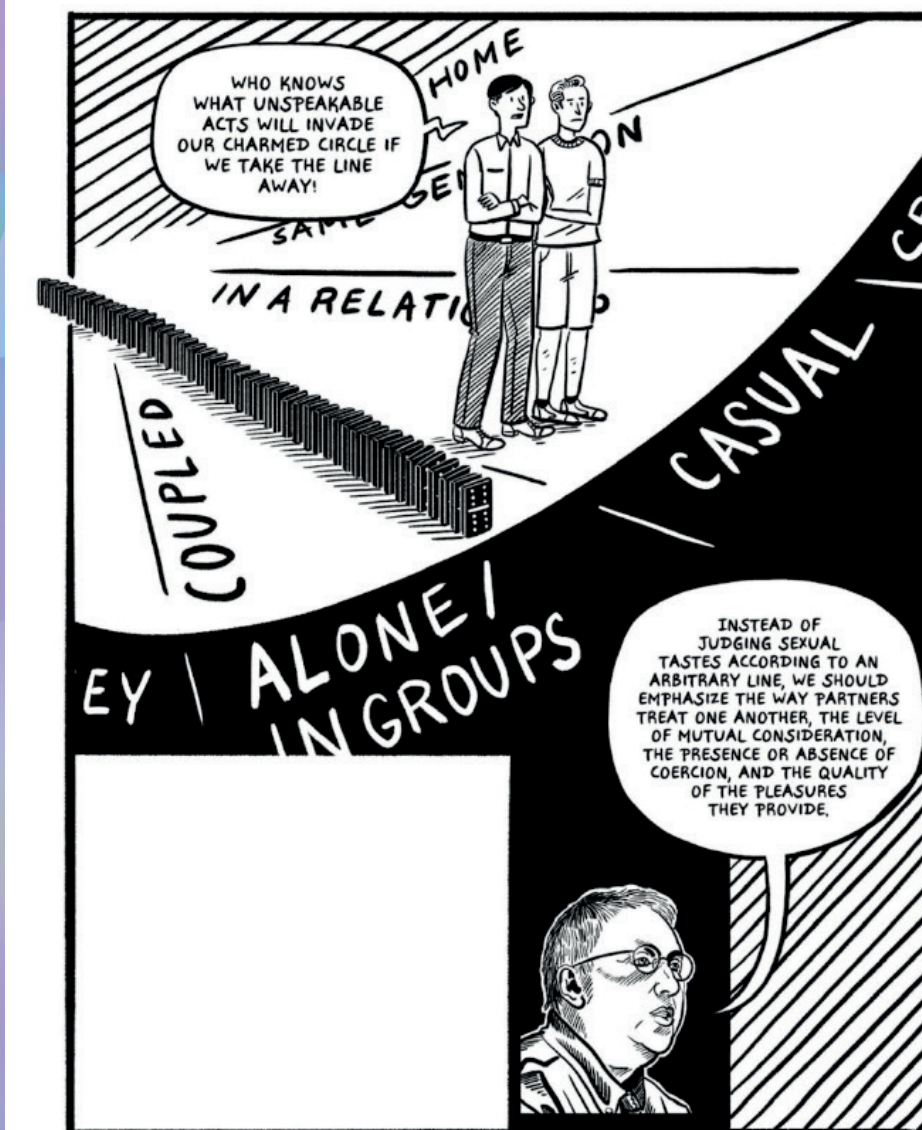
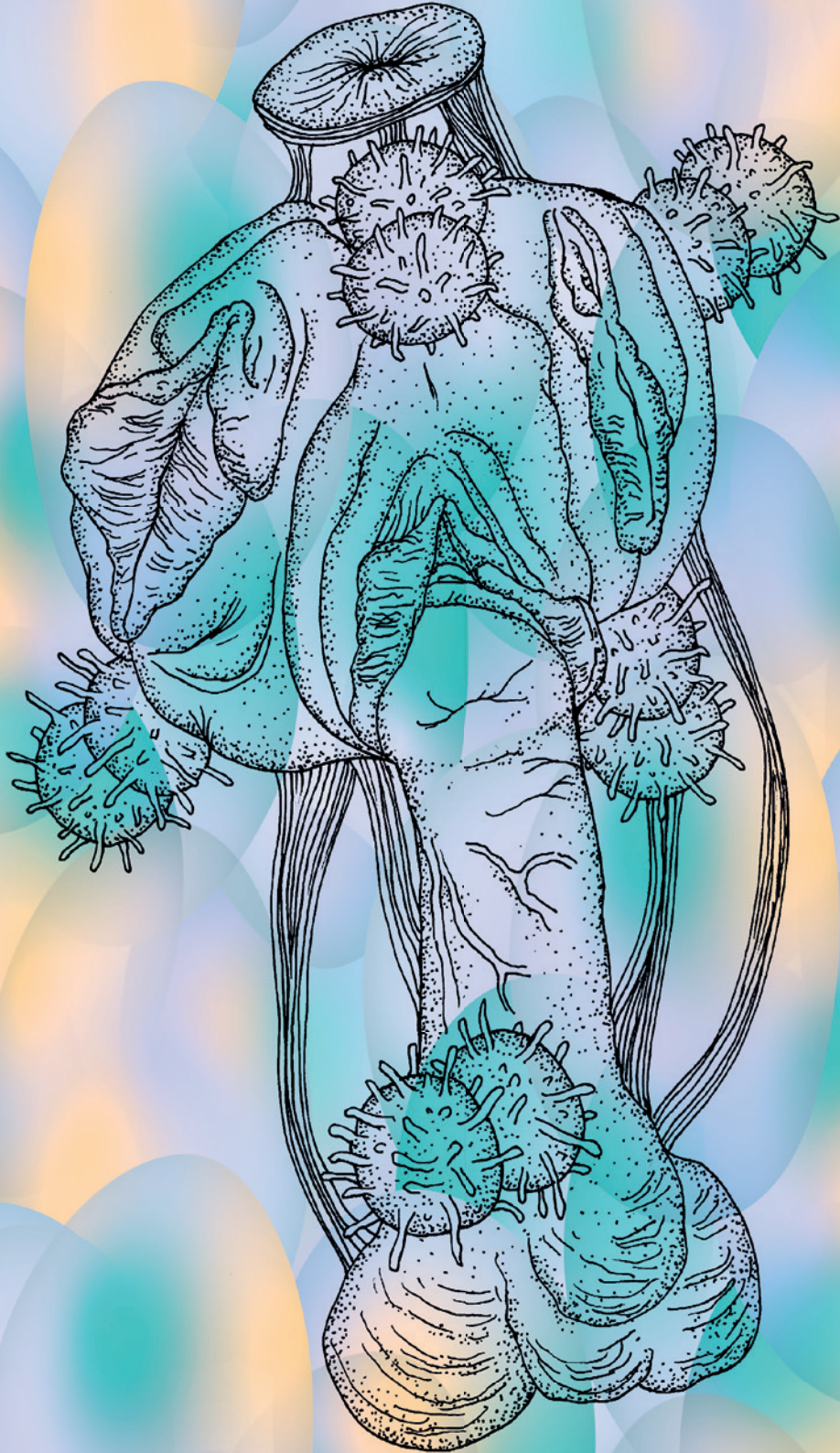
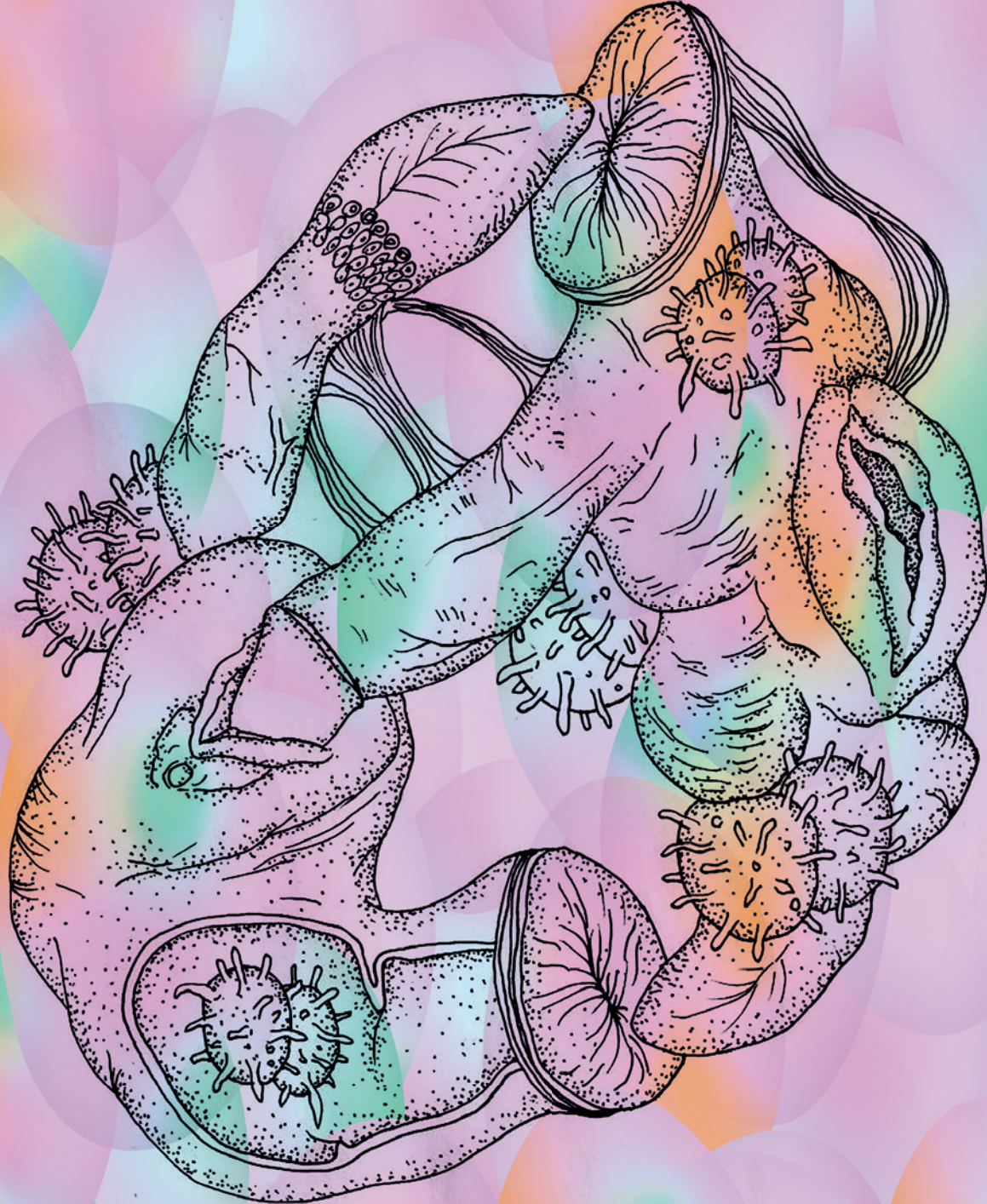


Fig 3. Meg John Barker(Author), Jules Scheele(illustrator). (2016) "Queer: A Graphic History": The Domino Theory.





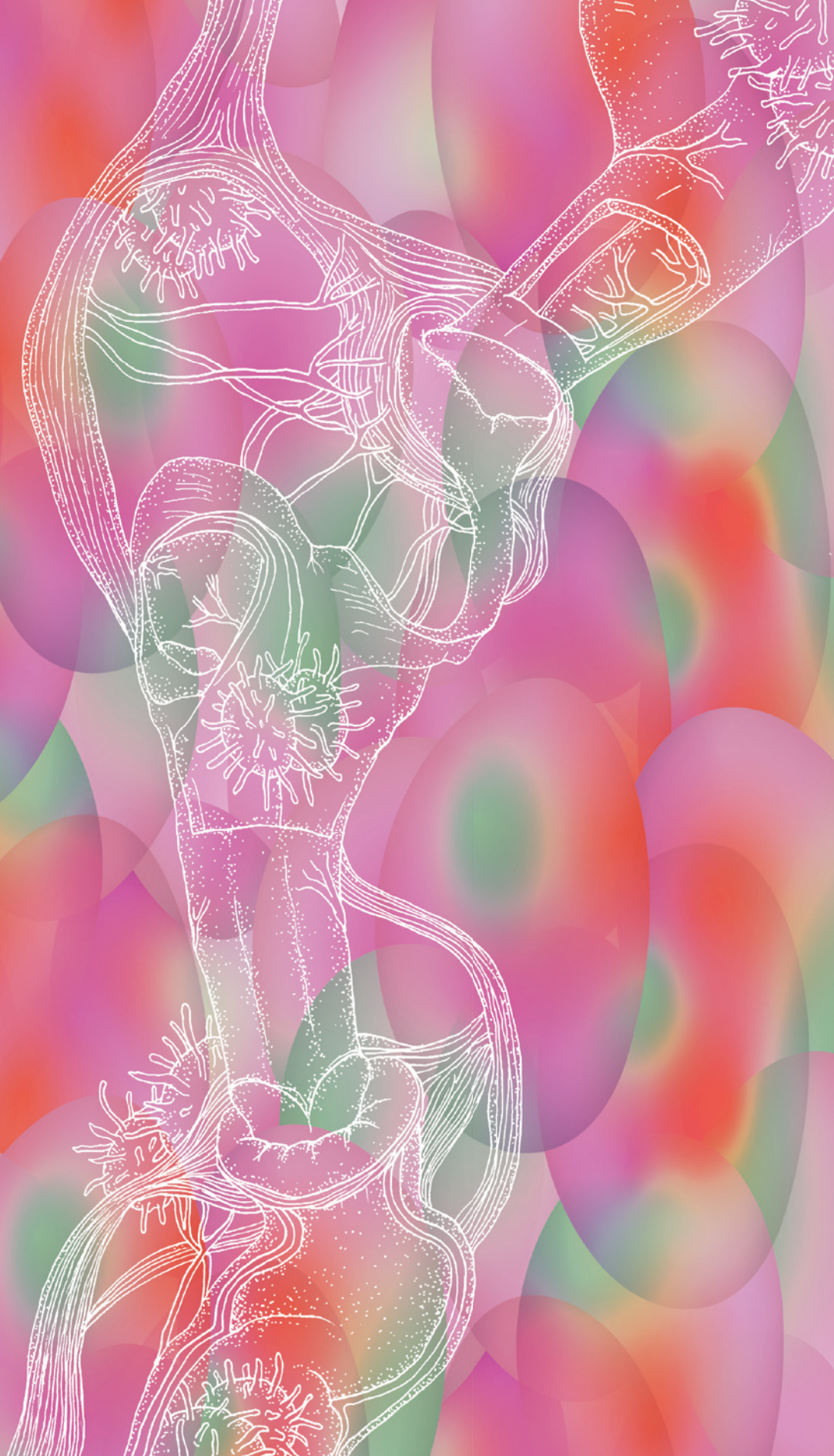
Gonorrhea







Gonorrhea



Chapter 1

Мрор

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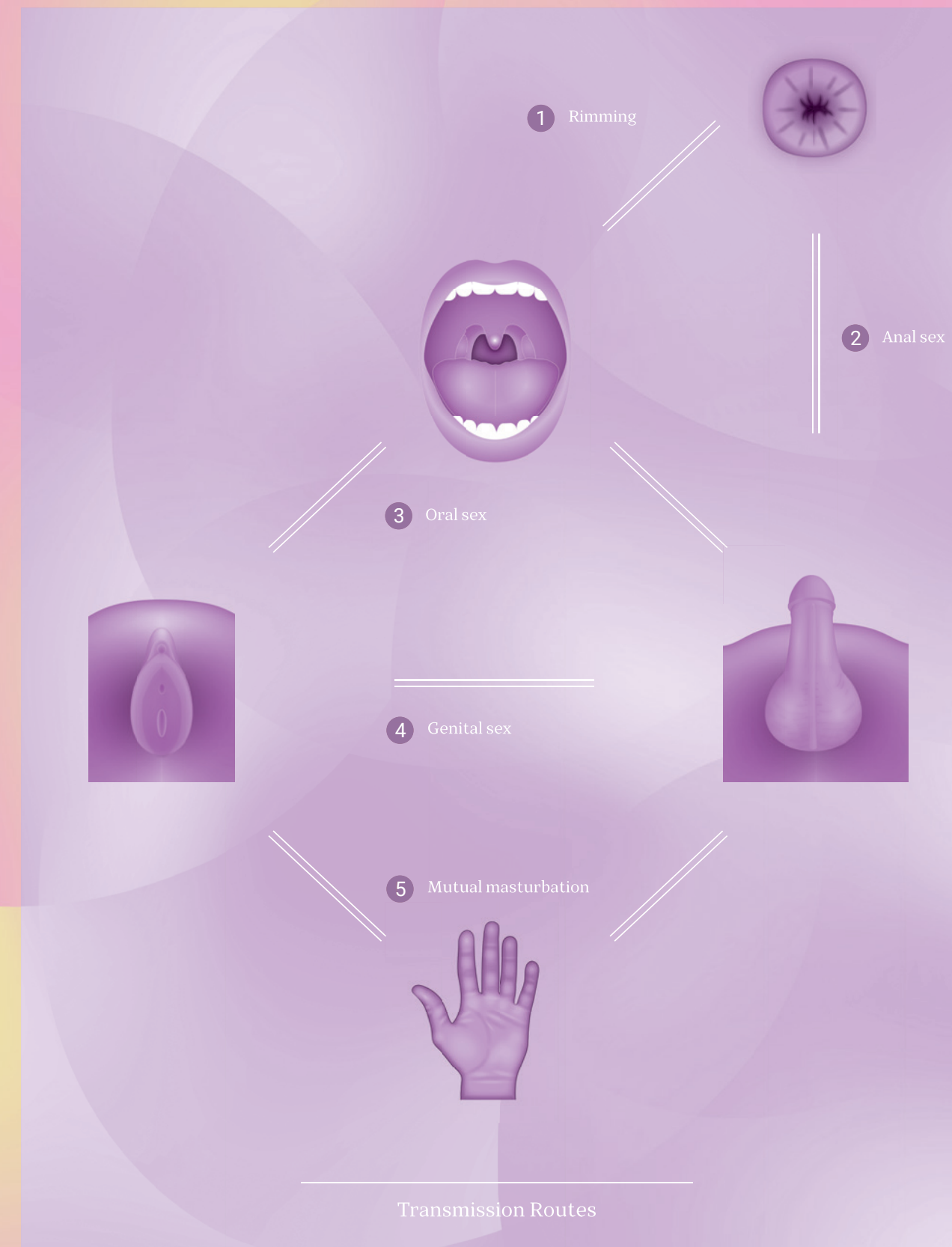




*Mpox*

**M**pox surprised the World in the spring of 2022, and in response the WHO secretary general designated the outbreak the highest status of alert PHEIC (Public Health Emergency of International Concern). Mpox is an example of a zoonosis that prevails predominantly among animals but can occasionally also infect humans. The COVID-19 pandemic, and most recently the mpox outbreak, are recent examples of diseases caused by zoonotic viruses that adapt and gain the capacity to pass on from human to other humans. Climate change, deforestation (with increasing human interference in the natural habitats of wild life) and globalization (with rapid international transmission ) contribute to new and unexpected zoonotic outbreaks.

For years, mpox caused limited outbreaks in West- and Central African countries, affecting especially children and pregnant women (with mortality rates ranging from 1-10%). Transmission was mainly via skin-skin contact, airways and contaminated blankets.





*Mpox*

In the 2022 outbreak in over 100 countries worldwide the main route of transmission is sexual contact and over 95% of cases are gay and bisexual men who have sex with men. It is yet unknown if the virus adapted to make sexual transmission more efficient, or that the sexual network of men who have sex with men facilitated transmission.

Mpox is the name for the disease caused by the monkeypox virus (hMPXV). In November 2022, the World Health Organization (WHO) renamed the disease previously named monkeypox to mpox because the former name was considered colonial, racist and stigmatizing. It caused severe stigma of black people<sup>1</sup>, gay men of colour<sup>2</sup> and patients with chronic skin conditions<sup>3</sup>. Stigma shies persons with a chance of having monkeypox from seeking help and thus fuels ongoing transmission. Moreover, monkeypox is a misnomer since the animal reservoir are rodents and not primates.

1. <https://www.keranews.org/news/2022-09-20/apology-not-accepted-dallas-health-departments-monkeypox-flier-leads-to-complaints>

2. <https://www.wbur.org/cognoscenti/2022/09/19/monkeypox-hiv-vaccines-epidemic-josiane-martinez>

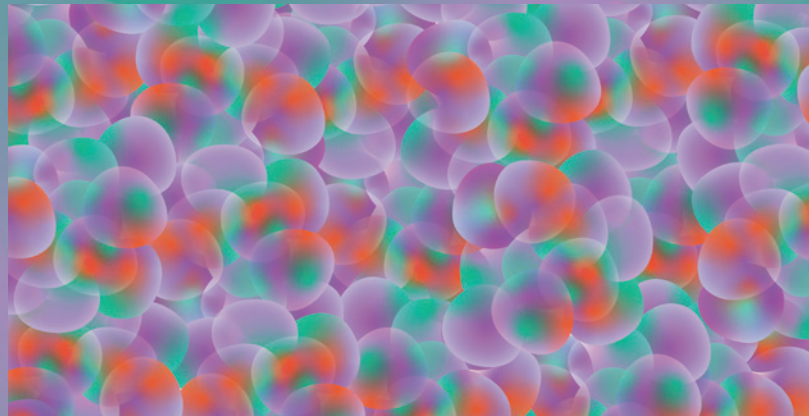
3. [https://www.tiktok.com/@redm3at/video/7129236475547274539?\\_r=1&t=8VLtFY70ove&is\\_from\\_webapp=v1&item\\_id=7129236475547274539](https://www.tiktok.com/@redm3at/video/7129236475547274539?_r=1&t=8VLtFY70ove&is_from_webapp=v1&item_id=7129236475547274539)







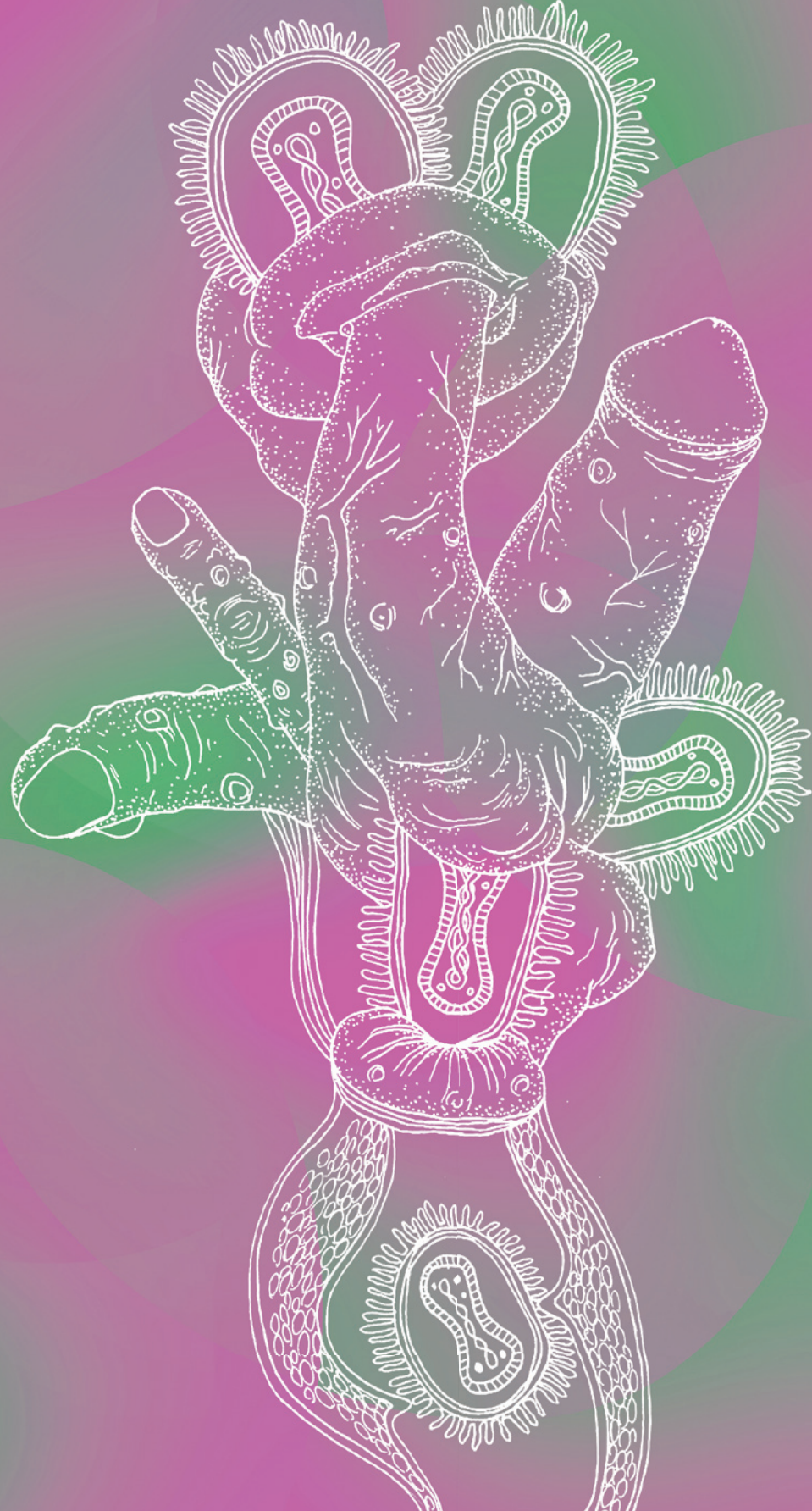
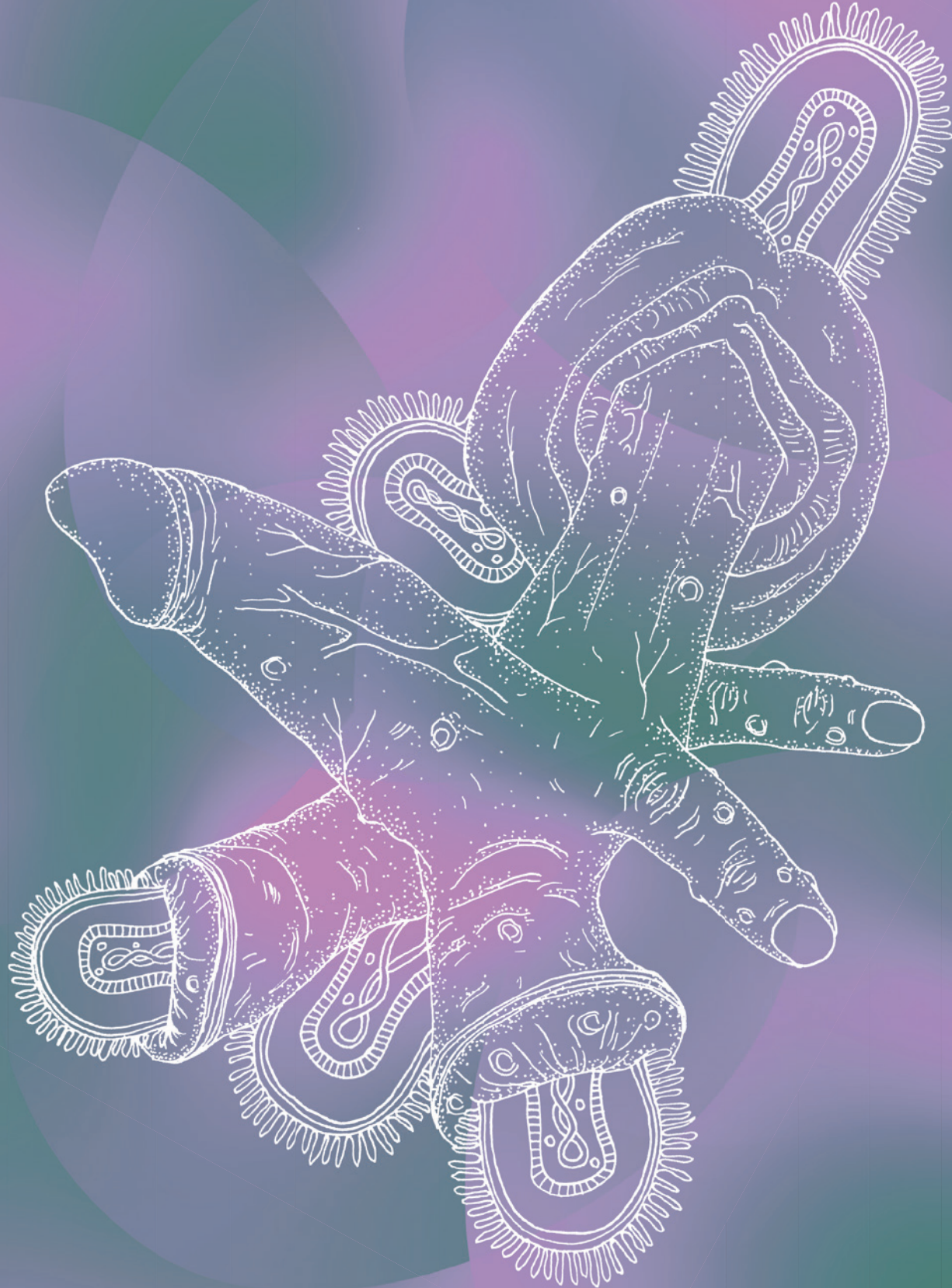
Trypophobia<sup>4</sup> is an aversion to the sight of irregular patterns or clusters of small holes or bumps. Trypophobia is deeply entrenched as an evolutionary fear of contamination evoking fight flight and fright responses. From an evolutionary perspective, signs of sickness and disease (such as infections causing holes and bumps) bring about strong and negative responses in society. We recently saw this during the 2022 human mpox outbreak in social media posts shaming and stigmatizing alleged mpox patients, often innocent people affected by chronic skin diseases like neurofibromatosis and eczema, mistaken as mpox.



Trypophobia is the fear triggered by clusters of small holes, bubble or dots

4. Not to be mistaken with trypanophobia, a pathological fear of needles and medical interventions.





*Mpox*



*Mpox*



Chapter 1

# *Scabies*



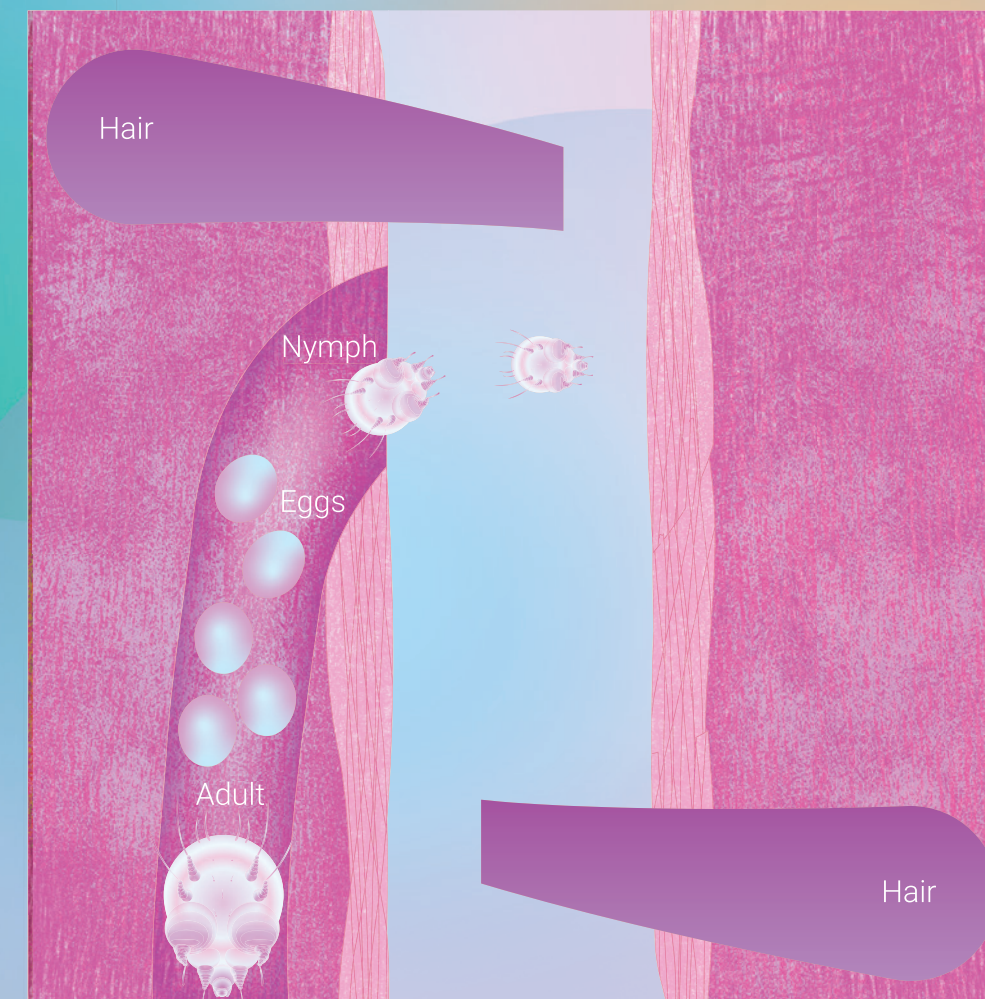


## Scabies

Scabies is an extremely itchy skin condition caused by *Sarcoptes scabiei*. It is a mite, has eight legs, and belongs to the arachnids (like spiders<sup>5</sup>). In low and middle income countries scabies is extremely common in the general population (especially in young children) where it is transmitted during play, sharing the same sleeping place and crowding. In higher income countries, the main route of transmission is sexual contact. Here, homeless people, students, backpackers, institutionalized persons and healthcare workers are the key populations affected by scabies.

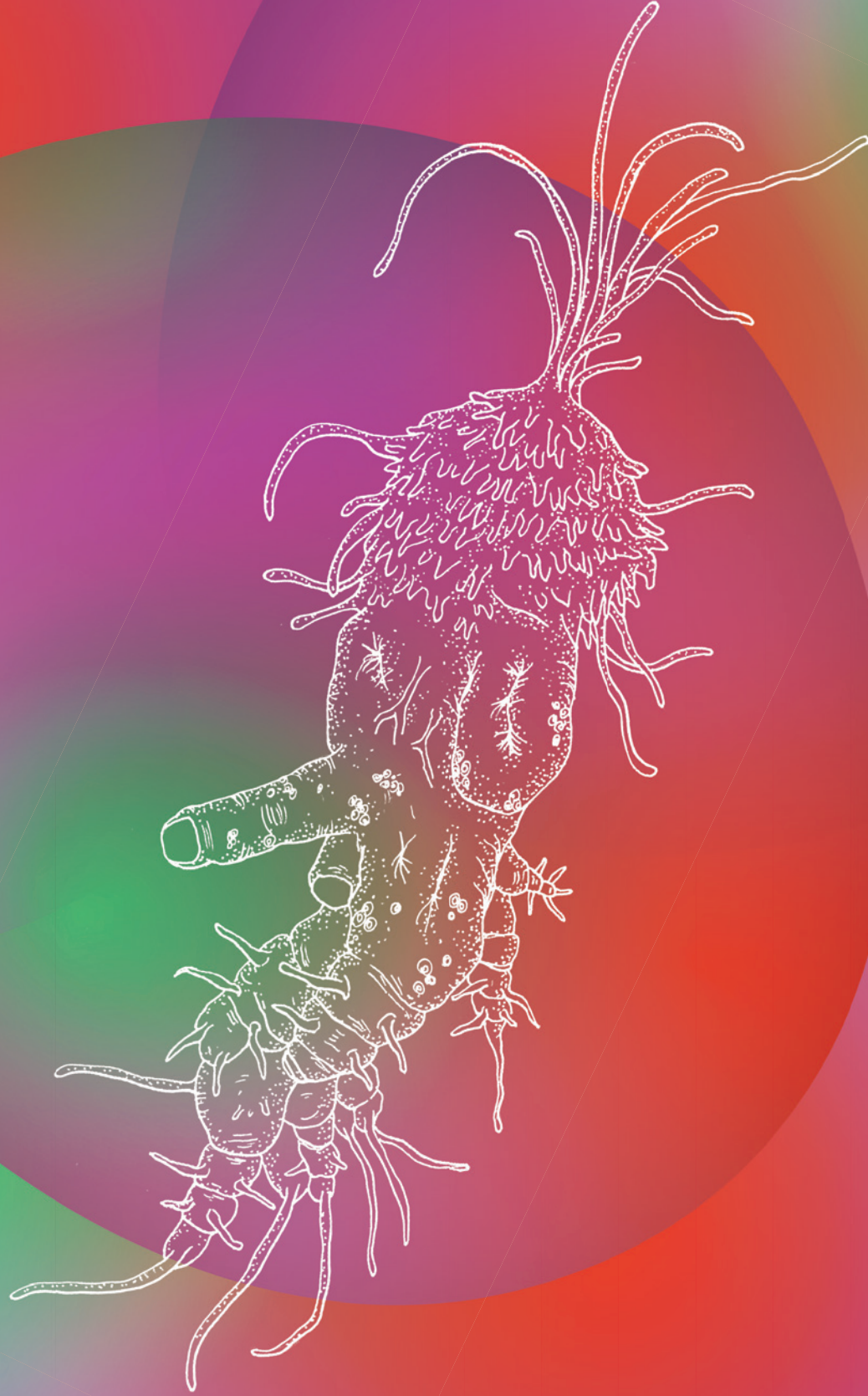
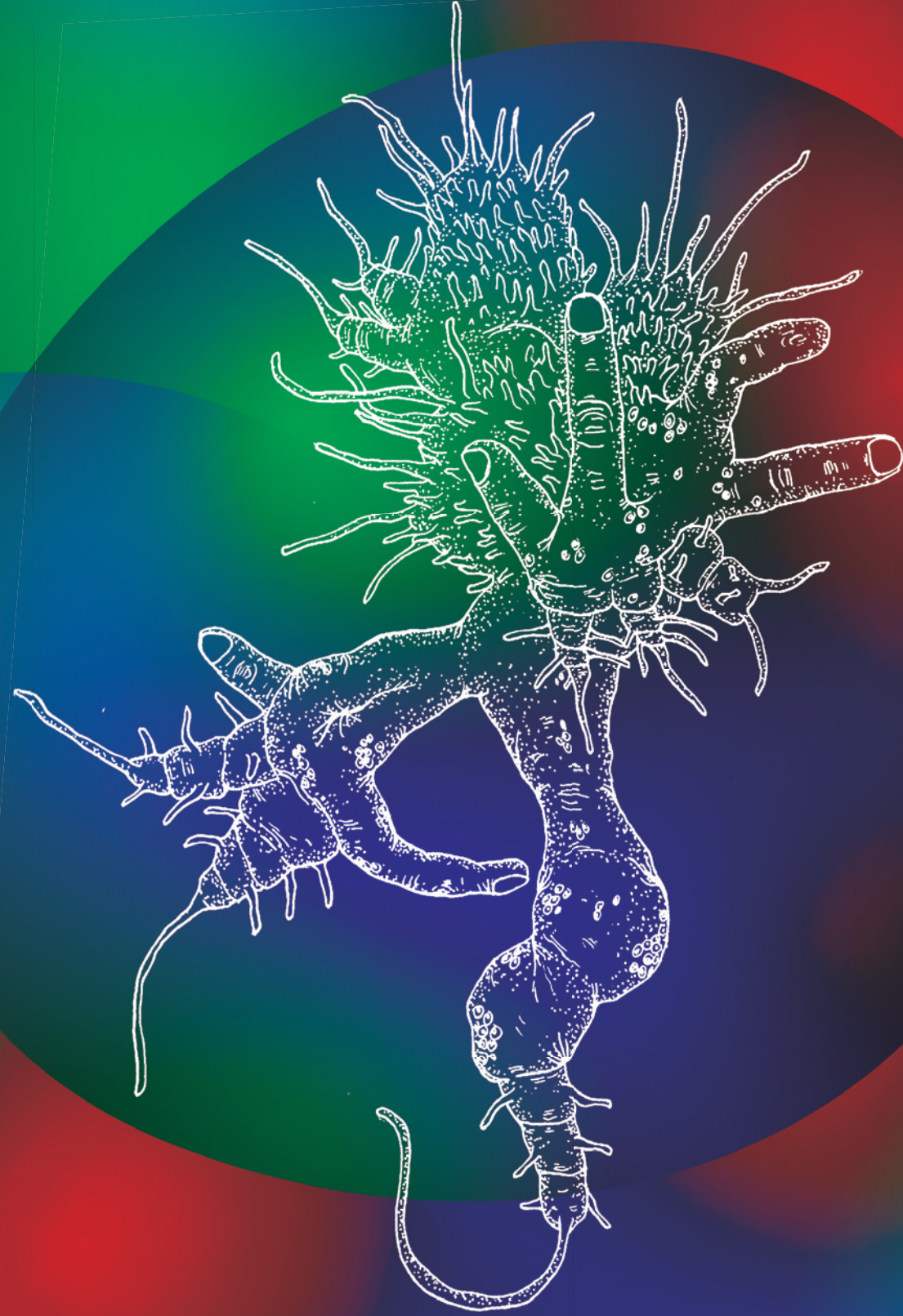
Like with mpox, scabies is transmitted during skin-skin contact that takes longer than 15 minutes. This is often the case during sex and foreplay, but also cuddling, snuggling, nuzzling, nestling, embracing, hugging & cocooning. When it comes to intimate contact, any boundary is artificial! Again, the borders are ambiguous and often transgressed in the daily lives of humans.

5. Not to be mistaken with insects, which have 6 legs.



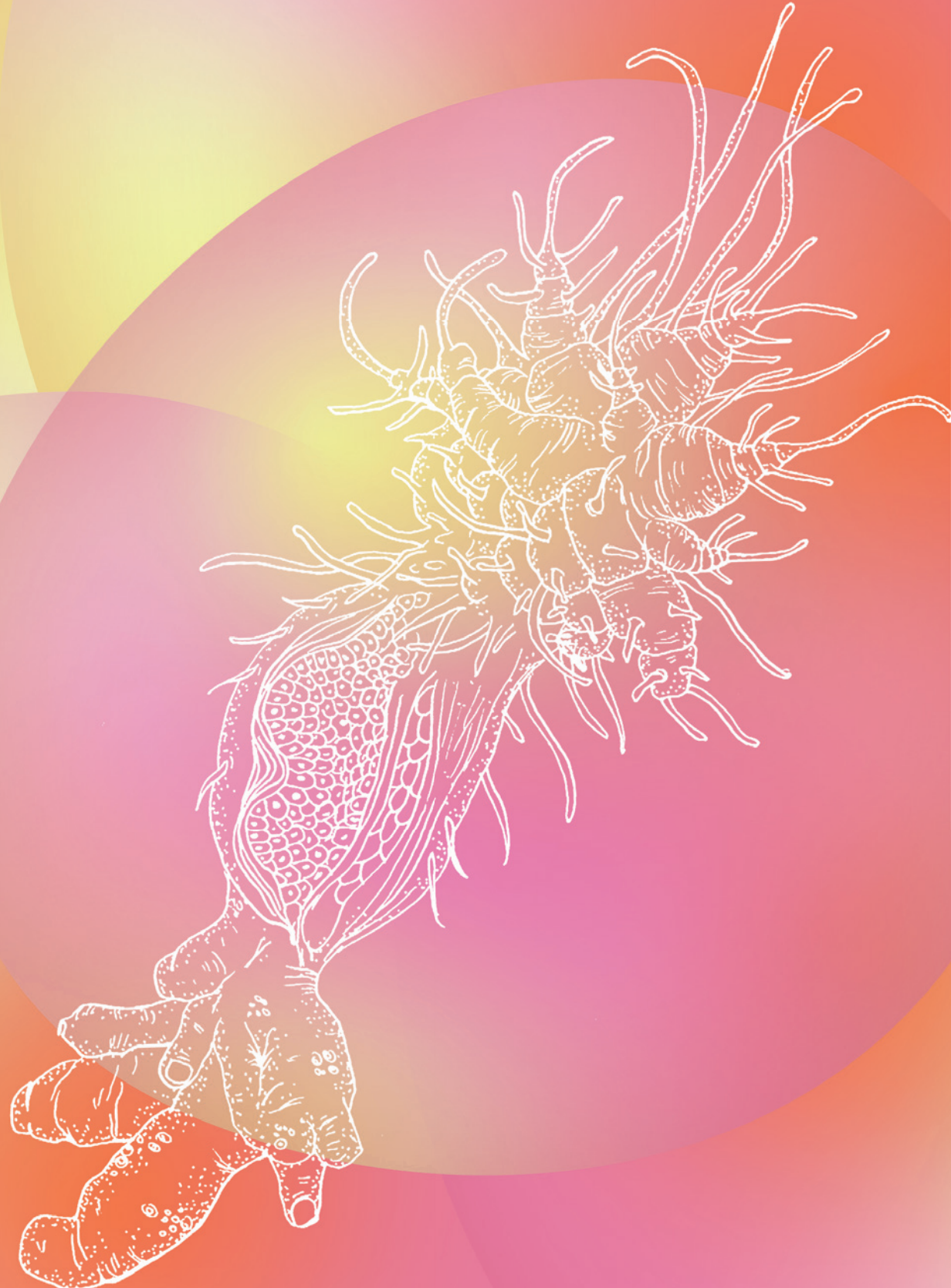
Person-to-person transmission through close skin contact





Scabies





Scabies



Chapter 1

# Syphilis

5

Scabies





Syphilis is caused by *Treponema pallidum pallidum*, a cork shaped organism that has plagued humanity for centuries. Its origin has been debated for decades, and 2 theories have been proposed: the New-World theory and the Old-World theory<sup>6</sup>. According to the New World theory, Columbus and his fellow travelers brought syphilis to Europe, upon their return from what they called Hispaniola. Subsequently, the disease spread over the European continent via national armies that invaded the territories of neighboring countries. As with most epidemics, the enemy was to be blamed which can be traced back to the various names under which syphilis was described: the Spanish pox (in the Low Countries), Mal de Naples (in France), and French disease (in Italy).

6. The binary approach to divide the earth in an Old and a New world is a Eurocentric, colonial concept starting with the exploration of Columbus by the end of the 15th century. Columbus and subsequent sailors claimed to have "discovered" the America's and called this territory the New World as if not inhabited by humans for millennia.

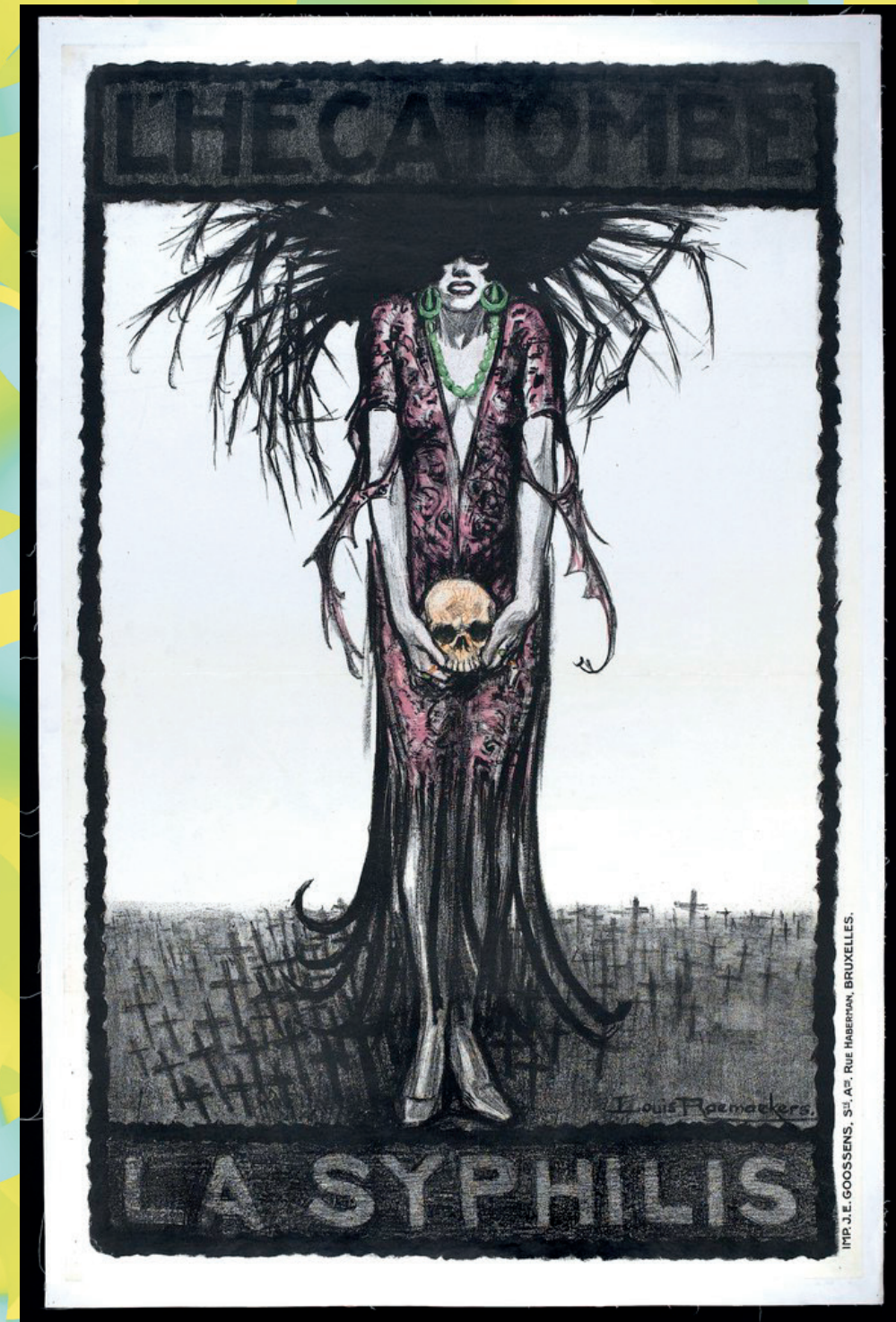


Fig 4. A woman (femme fatale) holding a skull; representing syphilis. Colour lithograph by Louis Raemaekers, ca. 1923. Wellcome Collection. In copyright



## Syphilis

Initially syphilis was very deadly; an estimated 10 to 15% of the European population succumbed to the disease.

According to the Old World theory, syphilis was already present in Europe, Africa and Asia long before the 15th century. This is supported by syphilis specific bone deformations in Egyptian mummies.

Like with mpox, syphilis can cause a spectrum of stigmatizing skin symptoms and horrific bodily destruction. Syphilis has been feared by society at large before an effective drug, penicillin, became available after the Second World War.

In the fight against the syphilis epidemic medicine took an often misogynous and binary approach. The goal was to isolate those having syphilis from those considered “healthy”. Women were demonized (as sex workers and “loose” women), whereas men (soldiers and sailors) were considered victims, to be protected from evil and infectious women.

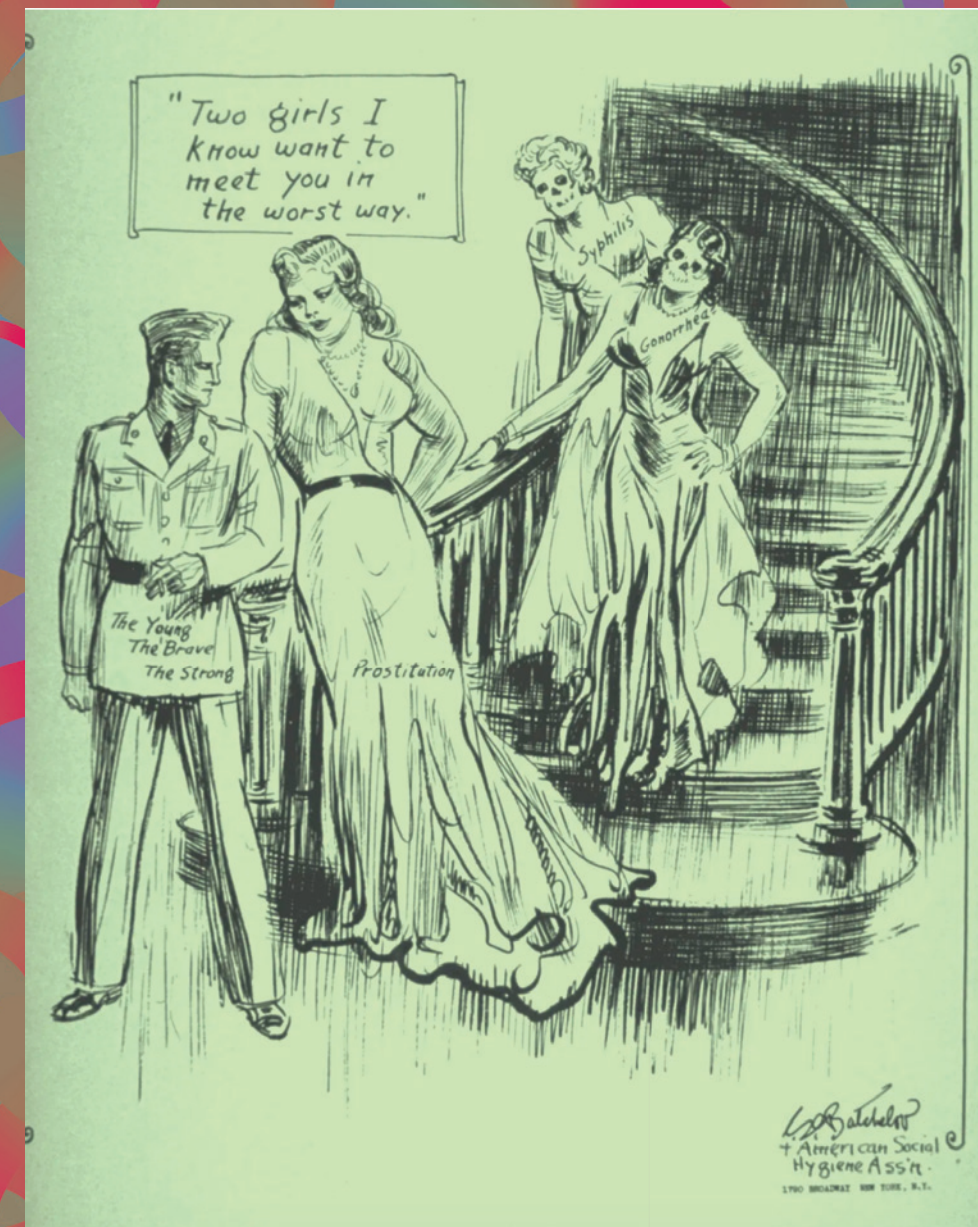


Fig 5. A poster from the American Social Hygiene Association warning soldiers of the dangers of prostitutes and STIs.

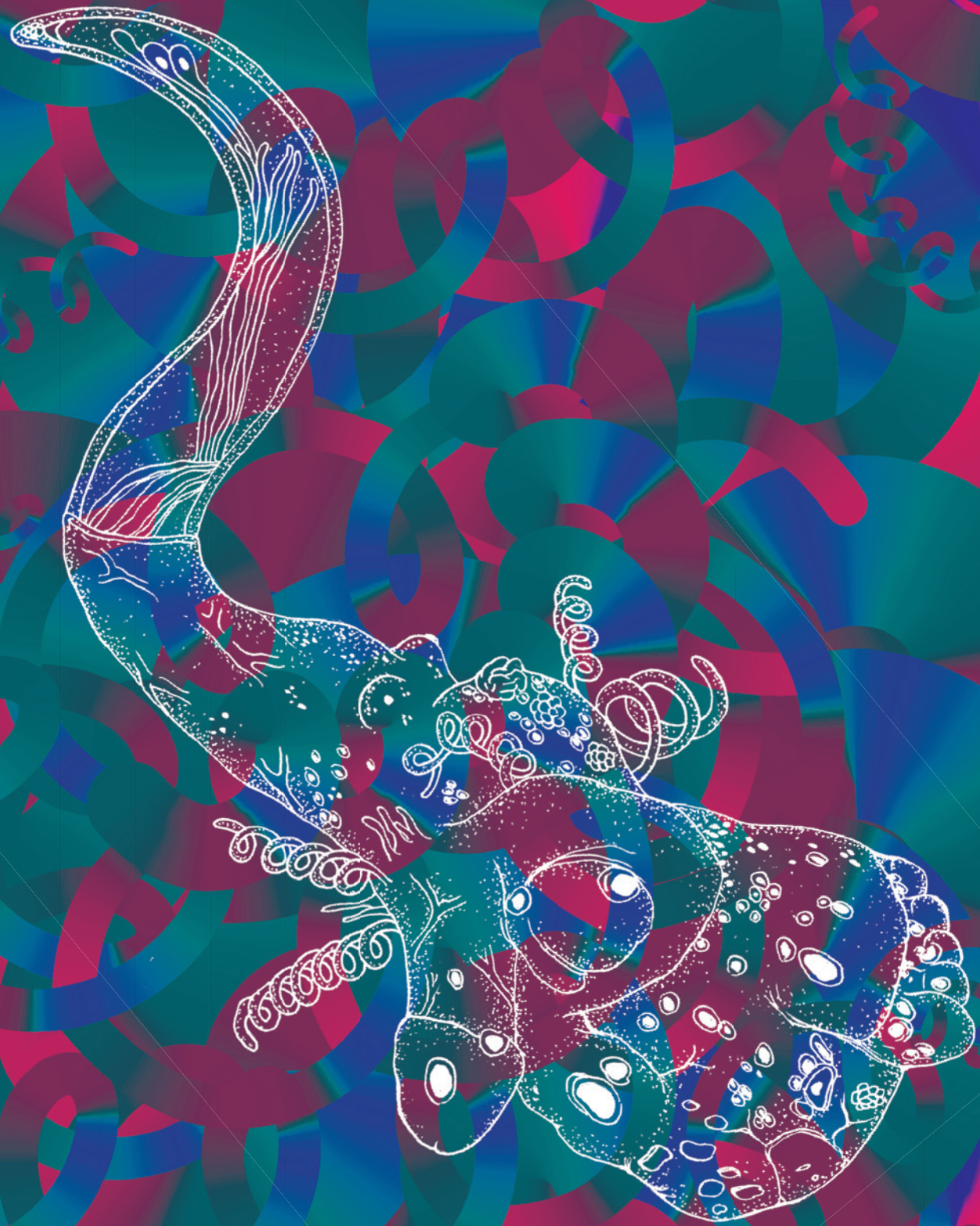




Syphilis







Syphilis





Syphilis





Chapter 2

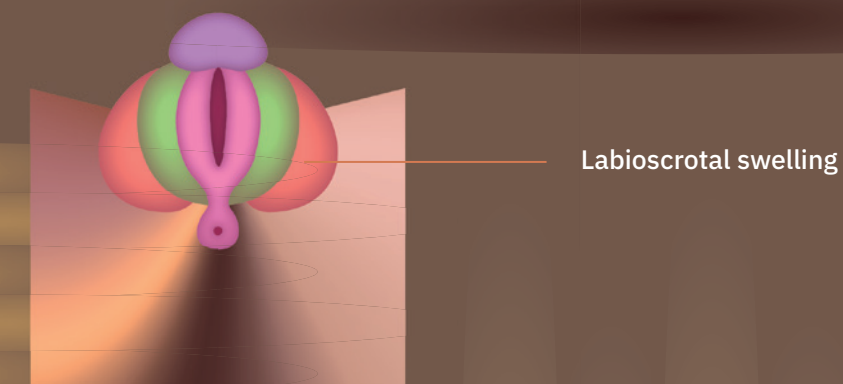
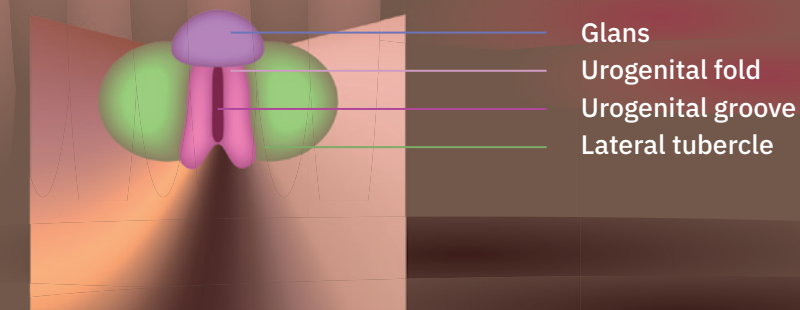
# Intersex and Binary Genital Anatomy



## Development of the Reproductive System

Mammal embryonic development is one of the remaining mysteries in biology. A 4-day old chicken embryo is hardly distinguishable from a human embryo of the same age. The same applies for weeks old male- and female human embryos. The blueprint of mammals is feminine. In the absence of the Y chromosome, embryos follow female development. Around 6 to 8 weeks after fertilization, the gene encoding for Sex-determining Region Y protein (SRY) on the Y chromosome causes the development of primary male sex gonads (testicles). It is under the influence of the hormone testosterone produced by the testicles that embryos undergo male sex development.

*Development of the Reproductive System.*

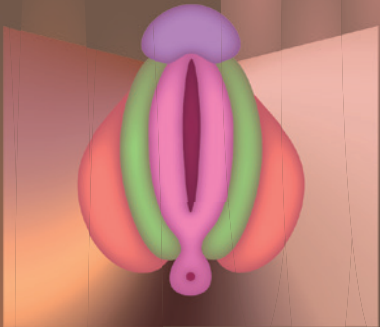


Early phases of external genital development in a human embryo. Sex differences have not yet developed.

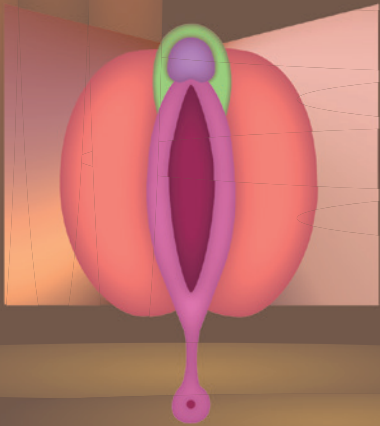
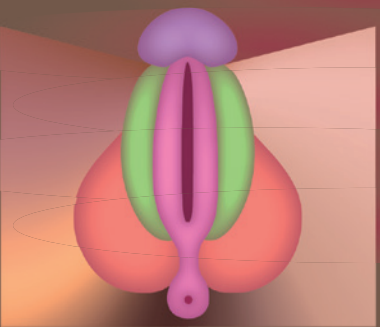


Sexual development continues after birth throughout life, and especially gains momentum during puberty. It is a multidimensional fascinating and fluid interplay determined by: chromosomes, genes, gonads (ovaria and testicles), external genitalia, the brain, and last but not least the psyche and emotions of each individual.

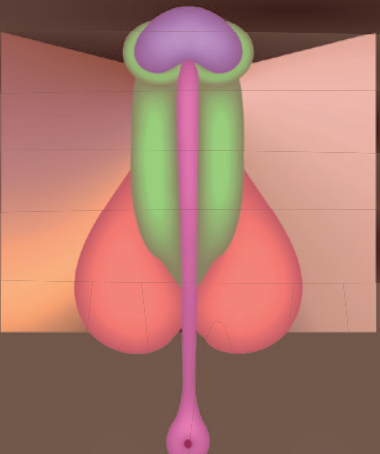
Development of the Reproductive System.



Developing  
(6-10weeks)



Female external genital development.



Male external genital development.

Subsequent phases of external genital development in a human embryo. Sex differences start to develop.

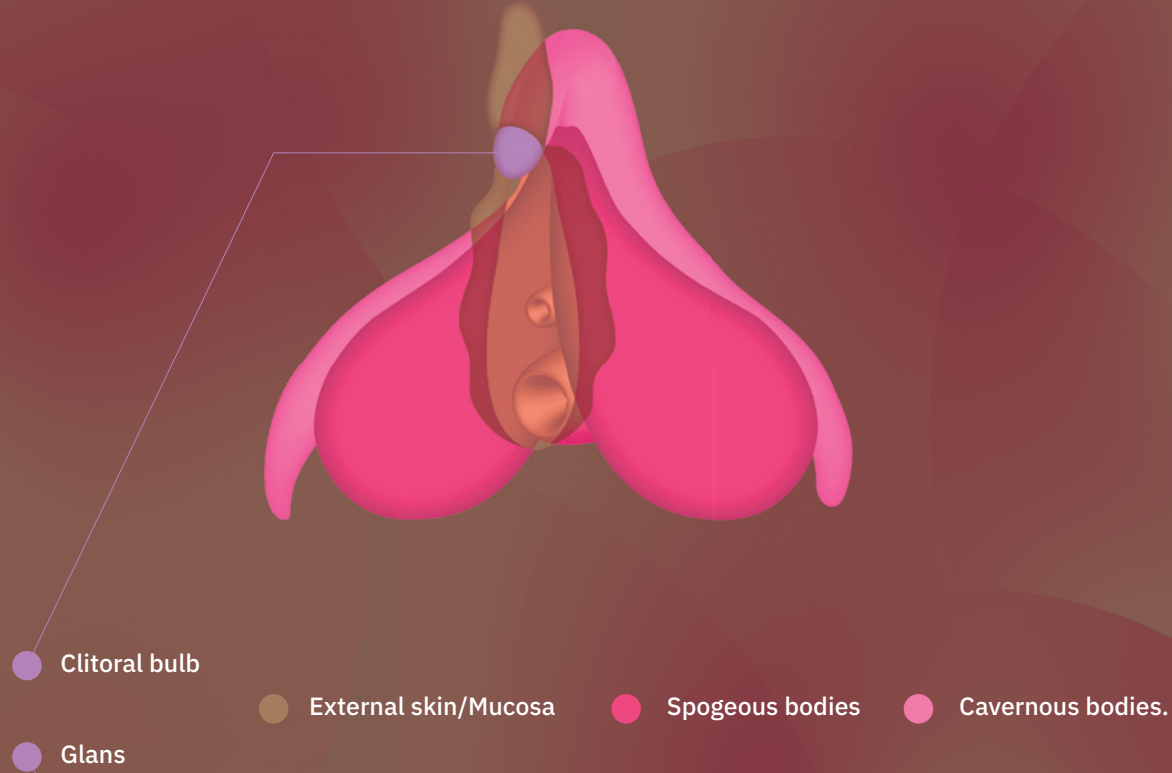


*The hidden parts of the clitoris.*

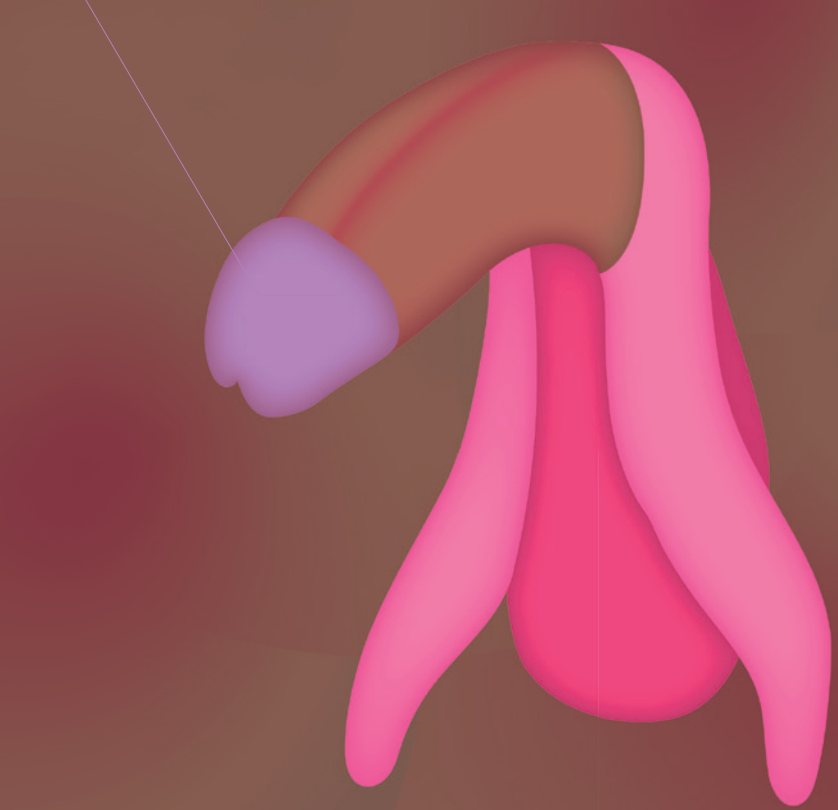
There are striking resemblances in the anatomy of the penis and the clitoris that persist after the embryonic development into adulthood. Although large parts of the clitoris (the spongy body and the cavernous body) are under the skin lining the vaginal wall, they play a big role in sexuality. Like the penis that becomes erect during sexual arousal, the inner parts of the clitoris cause the vagina to become wet and play a major part in sexual pleasure. It is a misconception that the clitoris is only the small visible button on top of the vagina.

*The hidden parts of the clitoris.*

| Clitoris |



| Penis |

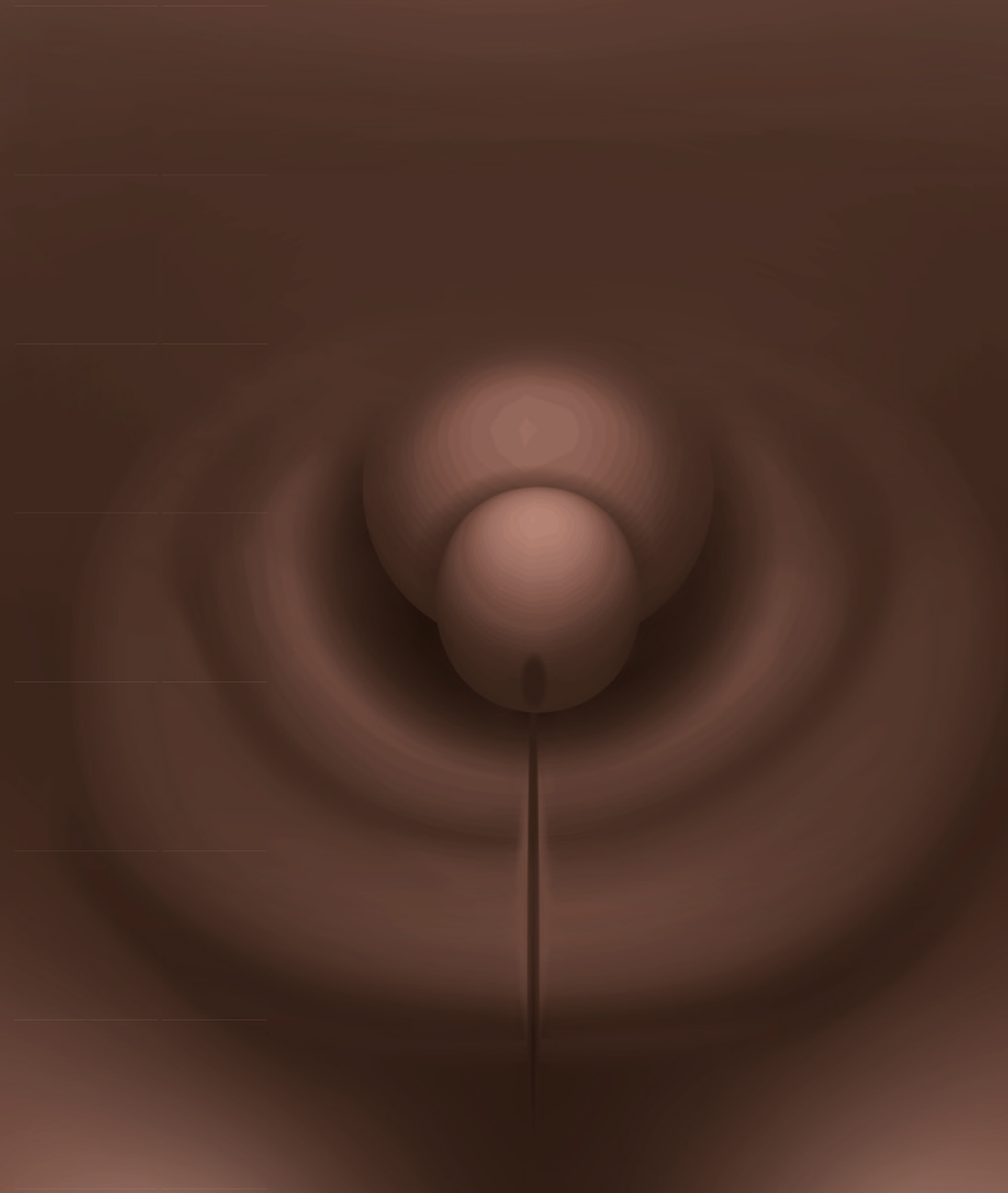




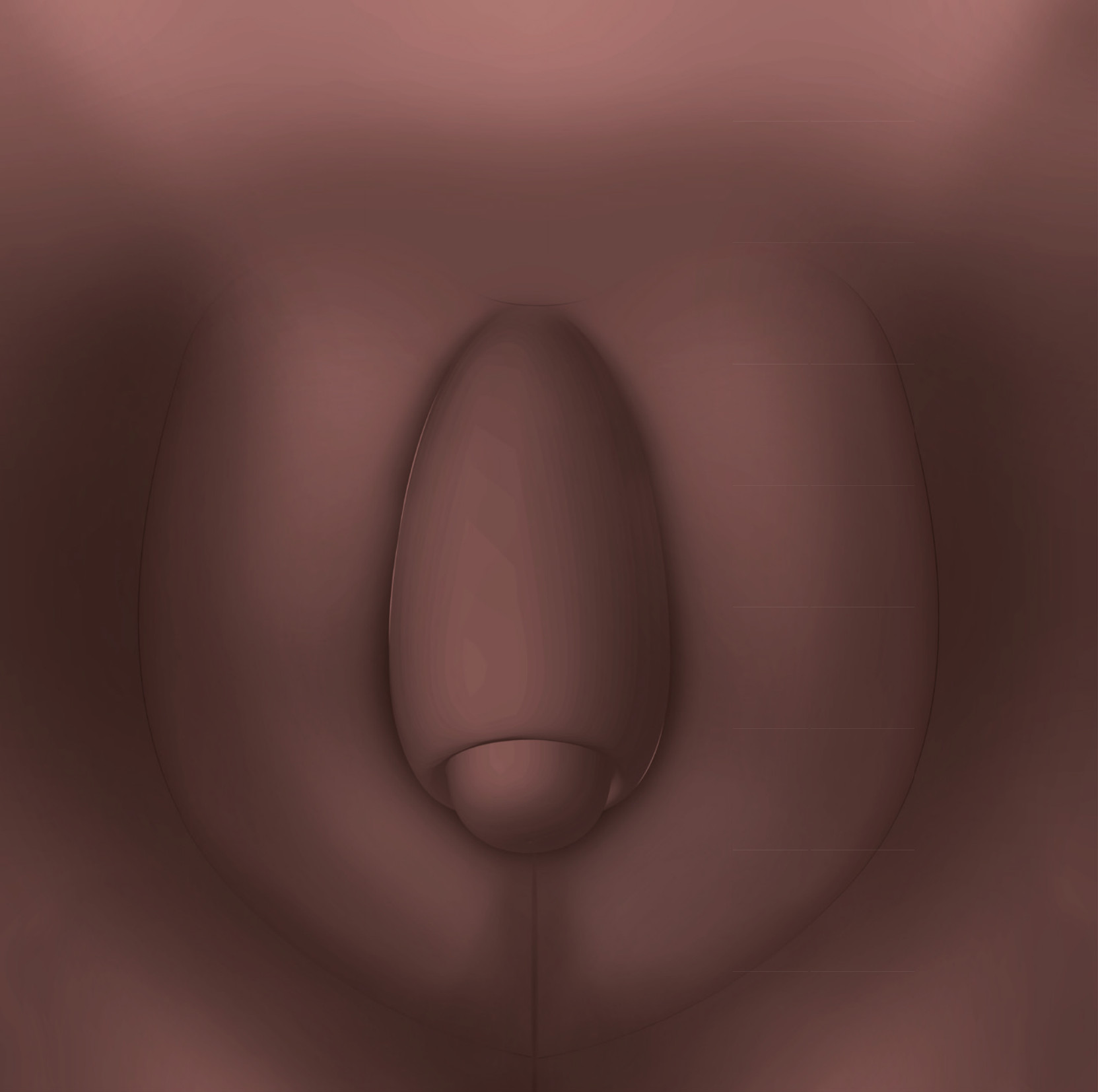
## *Intersex Variations*

The outcome of sexual development is a non-binary spectrum that can change in time. Intersex outcome is part of human nature and can occur in the many aforementioned dimensions(chromosomes, genes, gonads, external genitalia, the brain, the psyche and emotions). Intersex persons are individuals with a variation of the binary male/female pattern in the genital, the gonadal, the genetic and/or chromosomal sex. This is sometimes, characterized by gonadal absence, and ambiguous genitalia.

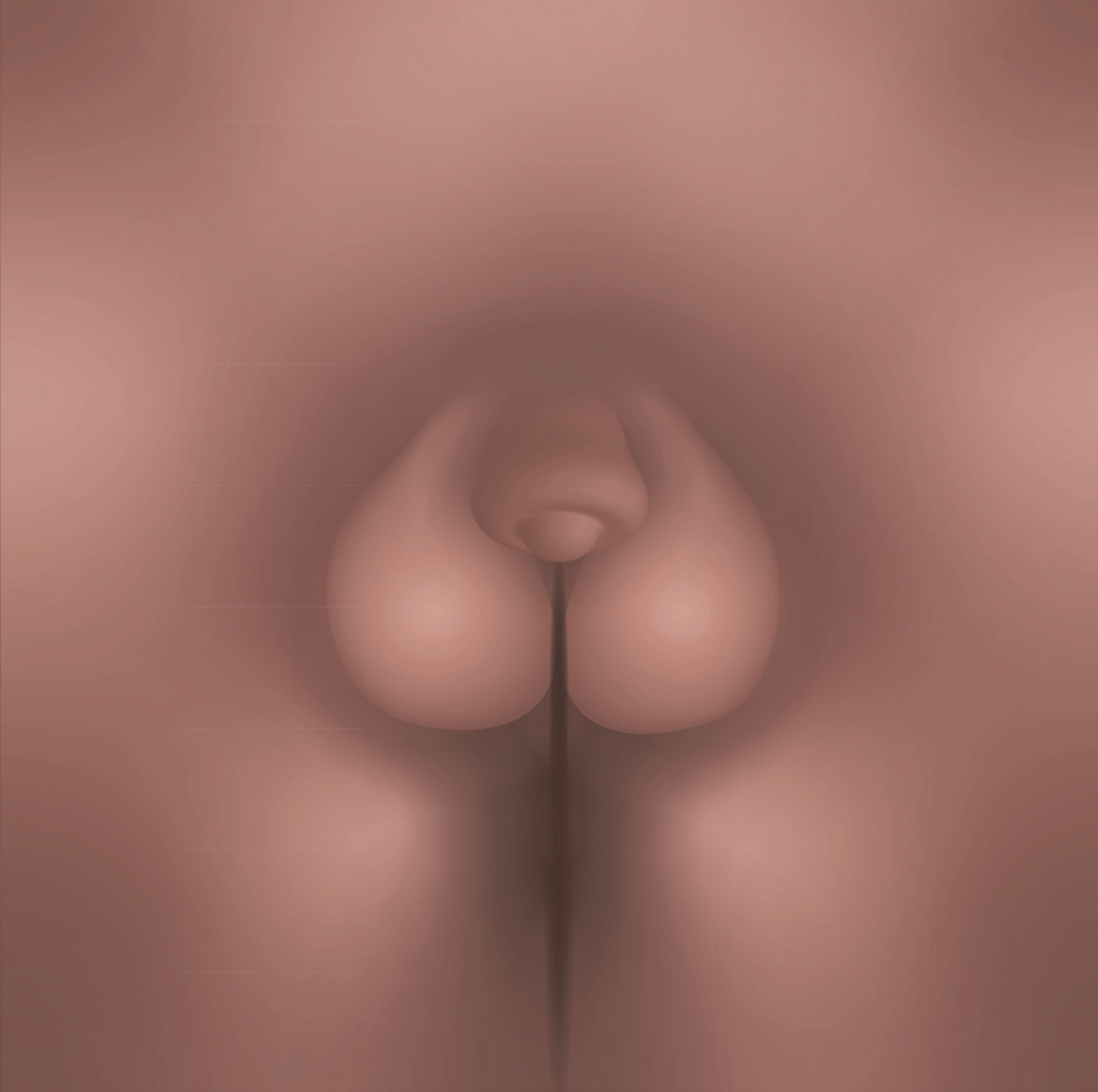
*Intersex  
Variations*



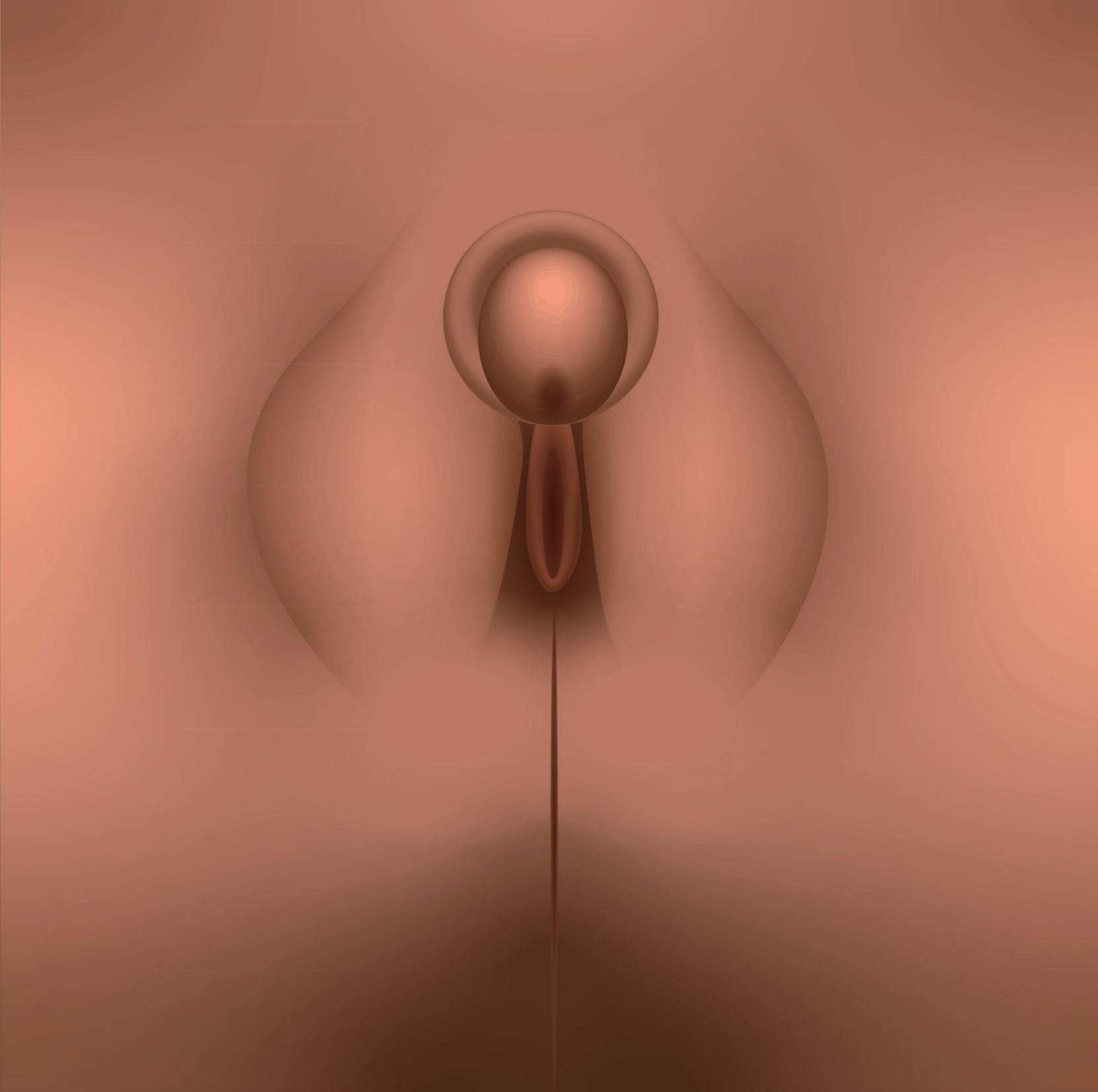




















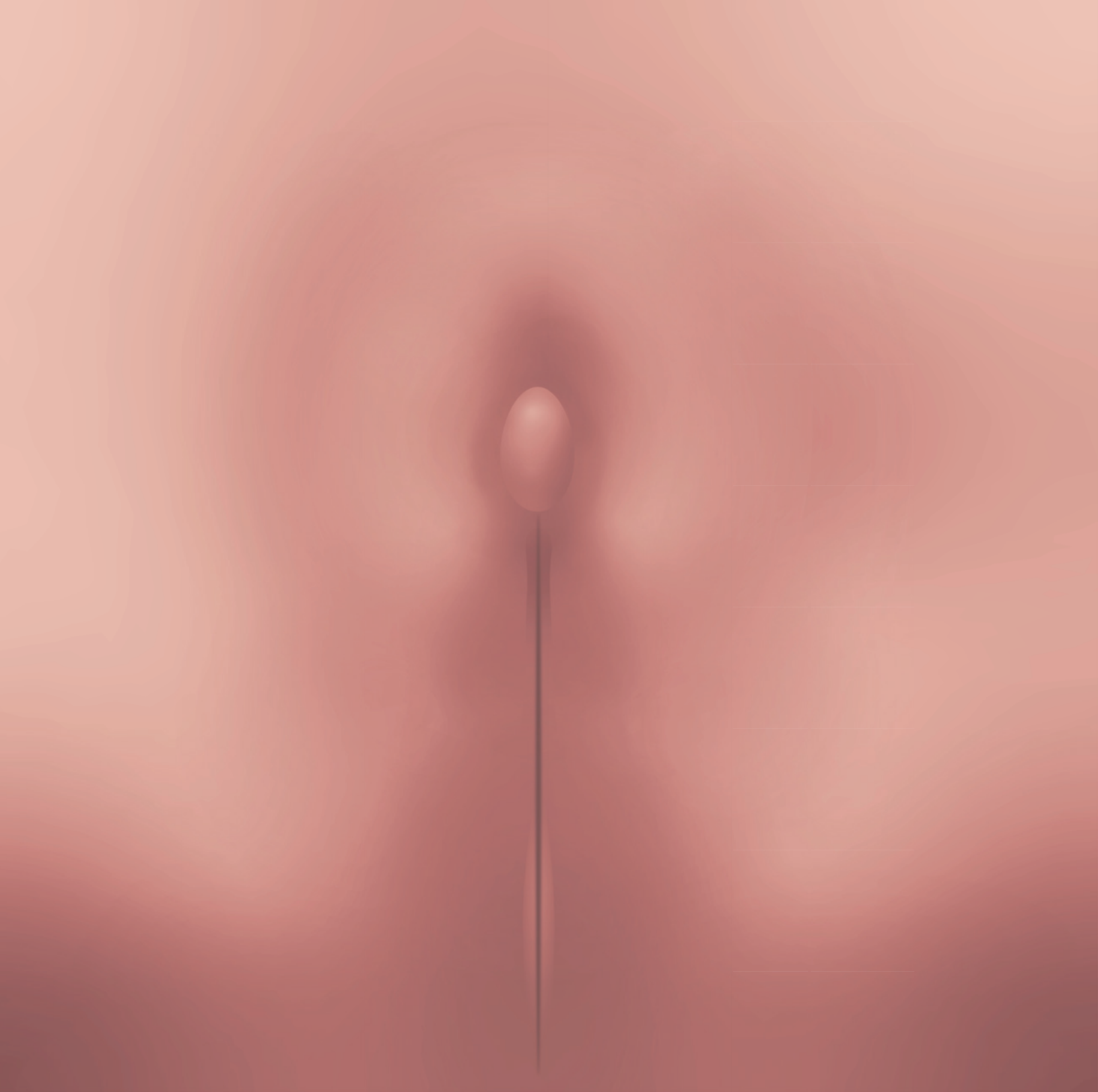












Illustrations by Kuang-Yi Ku  
Texts by Henry de Vries  
Graphic Design by Onieyen Studio

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