

## Topic 16: Aphrodisiacs

- Spray the hormones so the female pig smells it and she assumes the 'mating position' to be artificially inseminated
- The scent of a male may have an effect on females, very small though reproducible
- Androstenone is found in perfumes, usually male products but sometimes women as well
- Axe has androstenone
- Skatole
  - Produced by intestinal bacteria
  - Particularly in lower intestine
  - Responsible for the smell of feces
  - Is produced as a by product of oral bacteria
    - Bad breath
  - The flavour and fragrance industry makes large amounts of skatole
    - It is a key ingredient in virtually all women's perfume
    - Sometimes called the base note
    - Makes the perfume last longer
    - It is called civetole
      - The name comes from civet oil which is expensive and contains skatole
  - Naturally present in certain flowers
  - Added as an artificial flavour
    - The dose makes the poison
    - In large amounts it smells gross
    - In low amounts it smells/taste good
- Musk comes from a type of deer
  - Have to kill the deer to collect the musk
  - So it's expensive
  - Synthetic version is musk ketone
  - Commonly found in male cologne
- Do human pheromones exist?
  - Mammals who responded to pheromones have a structure in their nose called vomeronasal organ
  - Humans don't have that
  - Synchronization of menstrual cycles when women live together is evidence that they do
  - We are much more visual creatures when it comes to attraction
- Romantic love stimulates the chemical reward system
  - Phenethylamines released during romantic love, increases the dopamine levels in the brain
    - Produces effects similar to cocaine, tobacco and amphetamines (feel good drugs)
    - Also found in chocolate, however it can not enter the brain through diet
  - These increased level of dopamine cause decreases in serotonin
    - Low levels of serotonin are associated with OCD behavior

- Long term attachment and bonding
  - Vasopressin in males and oxytocin in females
    - Associated with mating behaviour (sex)
    - Oxytocin
      - Large amounts are released during labor
      - It is thought this release is an important part of the bonding between mother and baby as well as the skin to skin contact
      - This bond is strengthened during breast feeding, because more oxytocin is released
    - Both hormones are released into the brain during sex, particularly during orgasm
      - This release aids the bond between partners
      - So sex is really important in creating that bond
    - Tested on Prairie voles
      - They have lots of oxytocin and are monogamous
      - When given an oxytocin antagonist they would demonstrate polygamous behaviours
    - Mountain voles do not produce lots of oxytocin (they are more promiscuous)
      - Researchers injected oxytocin and it had no effect
      - But they did not have a lot of receptors for the hormone
      - When genetically engineered to have more receptors they did not become monogamous but they became more sociable, more tolerable of other animals, more cuddly
- Aphrodisiacs
  - Supposed to increase the desire/ability to have sex
  - Rhino horn
    - Doctrine of signatures=phallic symbol
    - No effect, it is made of the same stuff as our fingernails
  - Common stinkhorn
    - Mushroom
    - Doctrine of signatures
  - Oysters
    - Resemble female genitalia
  - Horny goat weed
  - Spanish fly
    - Is a beetle
    - Take the beetle kill it and dry and ground up the body
    - Secrete a substance as strong irritant
      - Used it to control bull breeding
      - Applied to the tip of the bull penis
      - Causing the bull to urinate
      - But it still hurts and takes this as a mating sign
    - Cantharidin is the active ingredient
      - Can cause serious blistering

- Dangerous
- Testosterone increases sex drive in males and females
- Cocaine is associated with hypersexuality
- Ecstasy reduces your inhibitions
- Alcohol
  - Reduces inhibitions
  - Medical condition TDF (too drunk to fuck)
  - Too much alcohol impairs performance
- Addyi
  - For hypoactive sexual desire in women
    - To treat low sex drives
  - Nothing wrong with having a low sex drive an issue may occur when there is a difference in sex drives between partners
  - People who are asexual tend to have low sex drive
  - Very controversial
    - Makes it seem like there is something wrong with having a low sex drive
    - Makes it seem like men always have higher sex drives
  - When someone see their doctor with an issue the doctor needs to give the condition a name, also when trying to get a drug approved you have to have a specific medical condition that it would treat
  - Was initially tested as an antidepressant
    - But a side effect of increased sex drive was noticed
  - Failed FDA approval in 2010
  - New clinical trials in 2013
    - This trial showed an increase in satisfying sexual events
  - FDA approved in 2015
  - Can't be taken with alcohol
- Yohimbine
  - Drug used for erectile dysfunction
  - Prescription medication
  - All natural
  - Non prescription version is dangerous
    - If you have an erection for too long the cells of the penis start to die
- Viagra
  - Before 1980 erectile dysfunction was considered to be a psychological problem
  - Vasodilation produces an erection
  - Nerve impulse block vasodilation
  - The drug block the nervous signal to get an erection
    - Discovered by Giles Brindley
    - Presented his findings at a medical conference
    - Took the drug before his presentation and dropped his pants to prove its effectiveness

- Then invited member of the audience to touch his dick to prove it's not an implant
- This lead to a drug called alprostadil
  - Had to be injected into the penis
- Viagra was a failed blood pressure drug