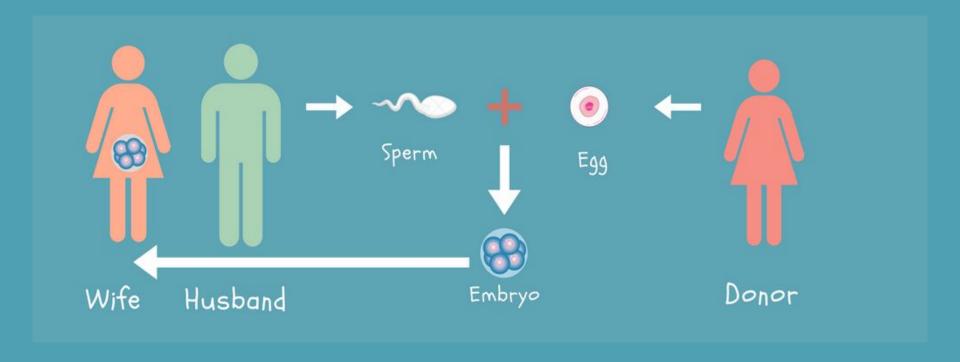
Egg Donation Process



Threshold Proxy Re-Encryption

UMBRAL: A THRESHOLD PROXY RE-ENCRYPTION SCHEME

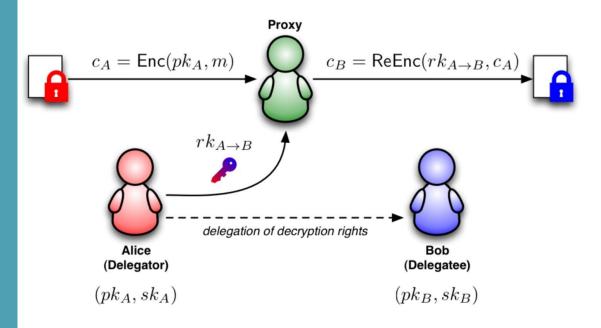


FIGURE 1. Main actors and interactions in a PRE environment



Meet Olaf & his wife Miranda



Ovarian Failure



Advanced age



Avoid transmission of hereditary diseases

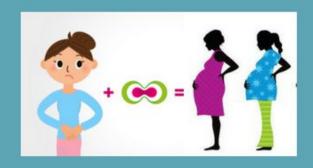


Failures to conceive after IVF

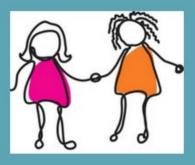
Meet GisAlice



Anonymous donors



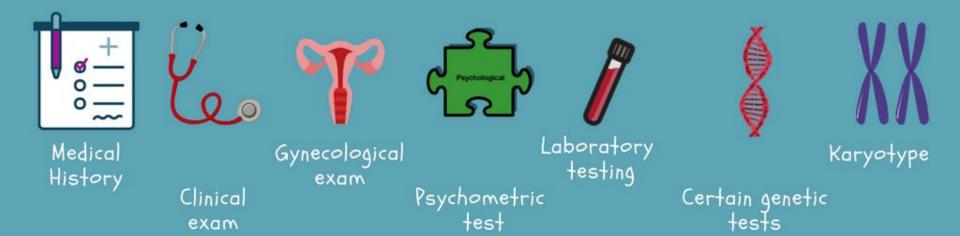
IVF programs -Egg sharing



Known donors

GisAlice's Medical Data

label: medical_Data



Gisele's purpose



Unicef Ambassador

United Nations Goodwill Ambassador

Causes she advocates for:

- Universal access to energy
- feature documentary that explores the impact of a child's early environment on their cognitive, social and emotional development,
- Wild Life Campaign against animal trafficking



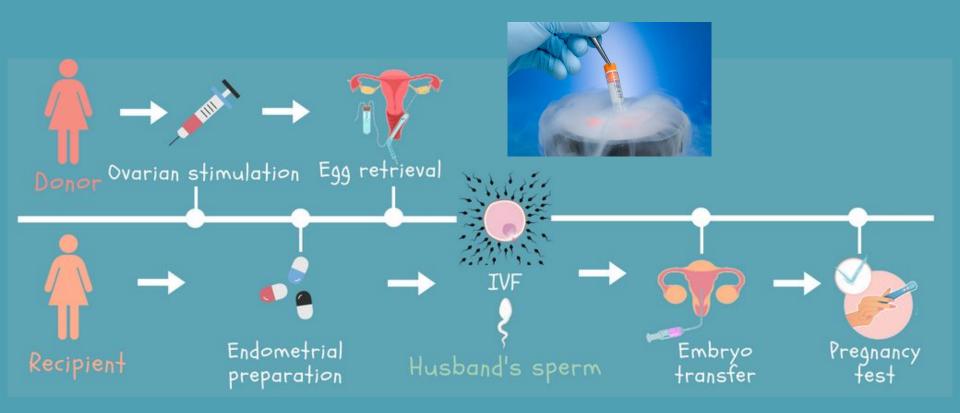
Thank you Giselice!



Recipient Couple



The Procedure



GisAlice is 23 years old

Collect the genetic material: uEggies, leaves the Fertility Clinic with an equivalent number of Smart Contracts (NFTs) and has full ownership and control of her digital certificates

Confirmation of Donor Address (from Open Zeppelin's _tokenOwner = _donor)

Simetric key in the capsule to encrypt all the metadata: used to encrypt the keys of all the egg collection metadata.

NFTS Medical Data

UEggies Wallet: one part dedicated to the NFTs and (PINK BUTTON)

another with medical history, genetic information, psychometric tests and other sensitive data that needs an extra layer of encryption to protect the access. (BLUE BUTTON) and this information can be shared/commercialized with 3rd parties (YELLOW AREA)