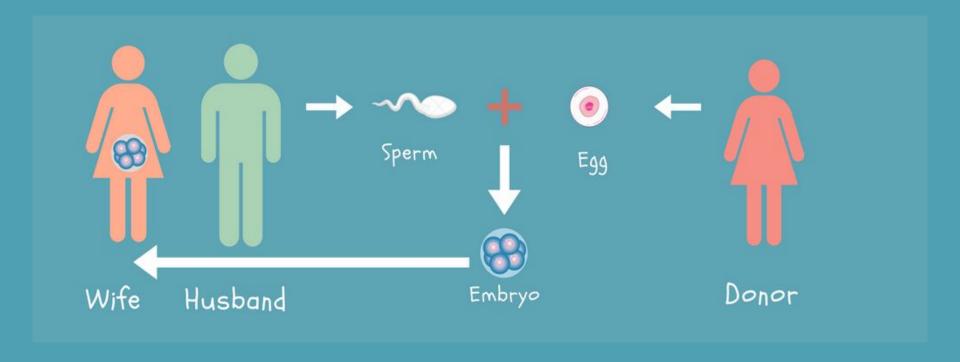
Egg Donation Process



Threshold Proxy Re-Encryption

UMBRAL: A THRESHOLD PROXY RE-ENCRYPTION SCHEME

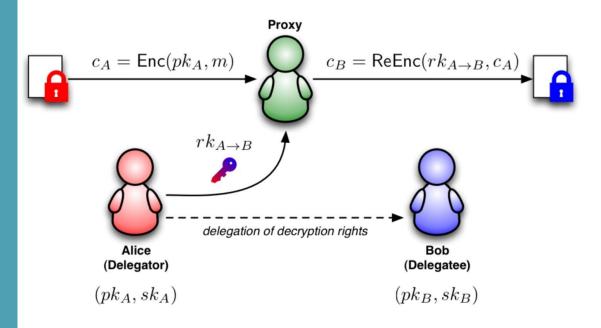


FIGURE 1. Main actors and interactions in a PRE environment



Meet Olaf & his wife Miranda



Ovarian Failure



Advanced age



Avoid transmission of hereditary diseases

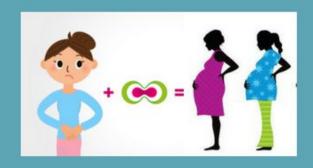


Failures to conceive after IVF

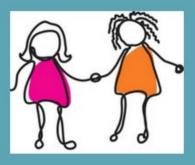
Meet GisAlice



Anonymous donors



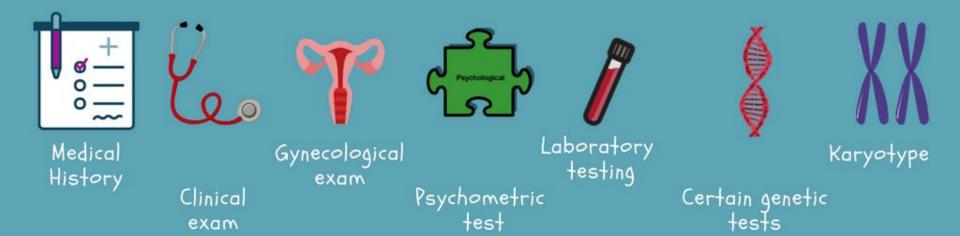
IVF programs -Egg sharing



Known donors

GisAlice's Medical Data

label: medical_Data



Gisele's purpose



Unicef Ambassador

United Nations Goodwill Ambassador

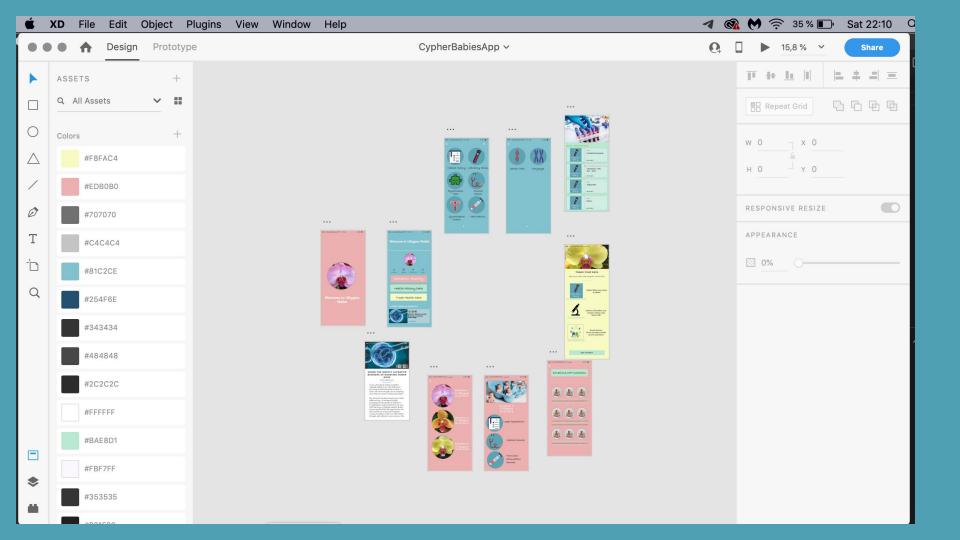
Causes she advocates for:

- 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!





A lot of hardwork with nuCypher / IPython

```
In [6]: gisalice
Out[6]: 'http://localhost:8151'
In [7]: derivation_response = requests.post(f"{gisalice}/derive_policy_pubkeys/lab
   ...: _exams")
                                          Traceback (most recent call last)
NameError
<ipython-input-7-b2b2fe595337> in <module>
----> 1 derivation response = requests.post(f"{gisalice}/derive_policy_pubkeys/lab_exams")
NameError: name 'requests' is not defined
In [8]: derivation_response = request.post(f"{gisalice}/derive_policy_pubkeys/lab_
   ...: exams")
NameError
                                          Traceback (most recent call last)
<ipython-input-8-4afbc9ffb86c> in <module>
----> 1 derivation_response = request.post(f"{gisalice}/derive_policy_pubkeys/lab_exams")
NameError: name 'request' is not defined
```



Unpin Date Range

Characters in Hash...

Characters in Name...

Pinned
Start date

End date

Total Pins: 1
Total Size: 195.2 KB

Date Pinned

Date Unpinned

Name

IPFS Hash

Size

2019-11-09T16:49:59.918Z

Currently Pinned

Lab.Chol.2019.08.10.pdf

QmTLA69jDBQRP6QDa3qgQbyby1ExNx69bYbKb6rsrXvthE

195.2 KB

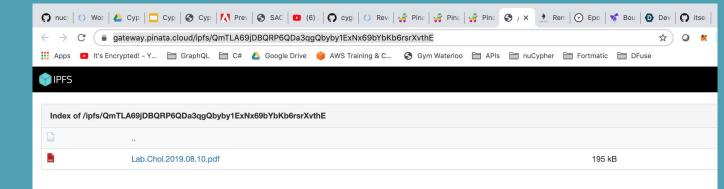
Pin Date Range

Pin Status

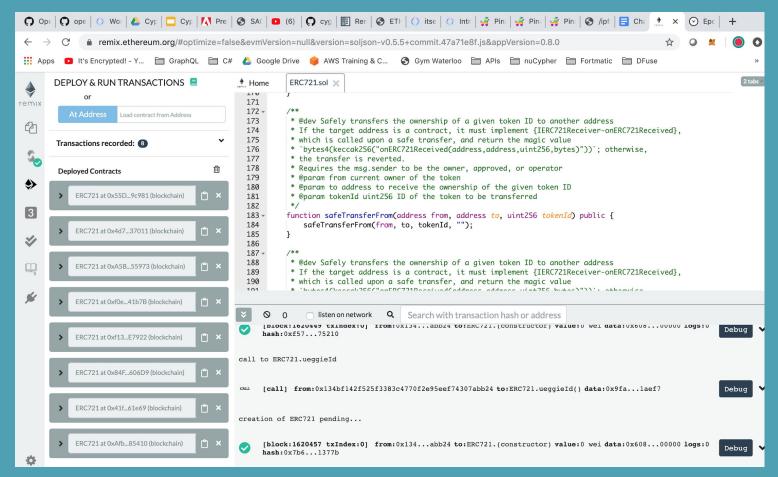
Data lives inside IPFS now

Hash Contains

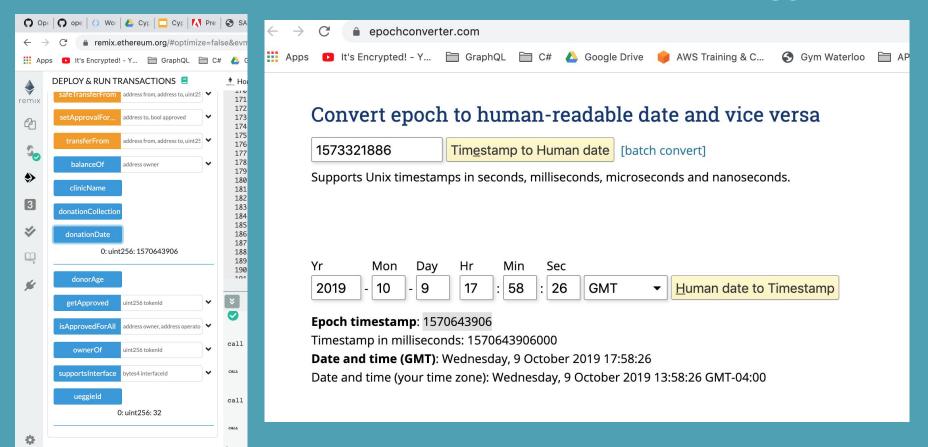
Name Contains

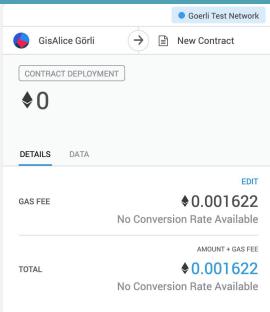


Deployment of 9 ERC721 at Goerli

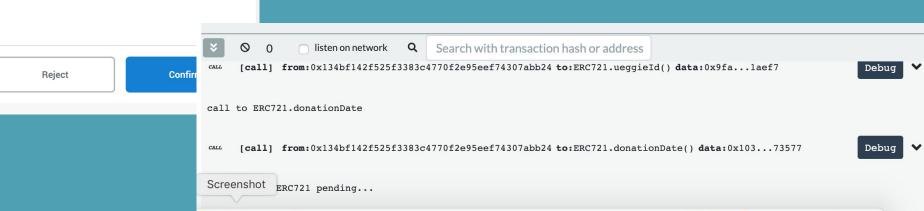


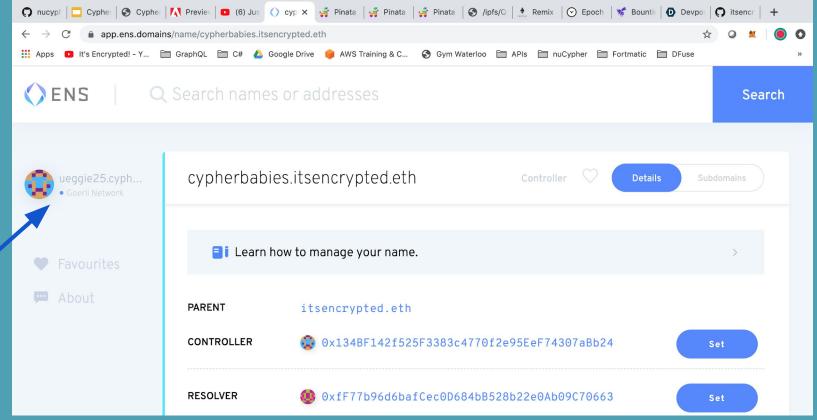
Each NFT instantiates with different times and uEggies IDs



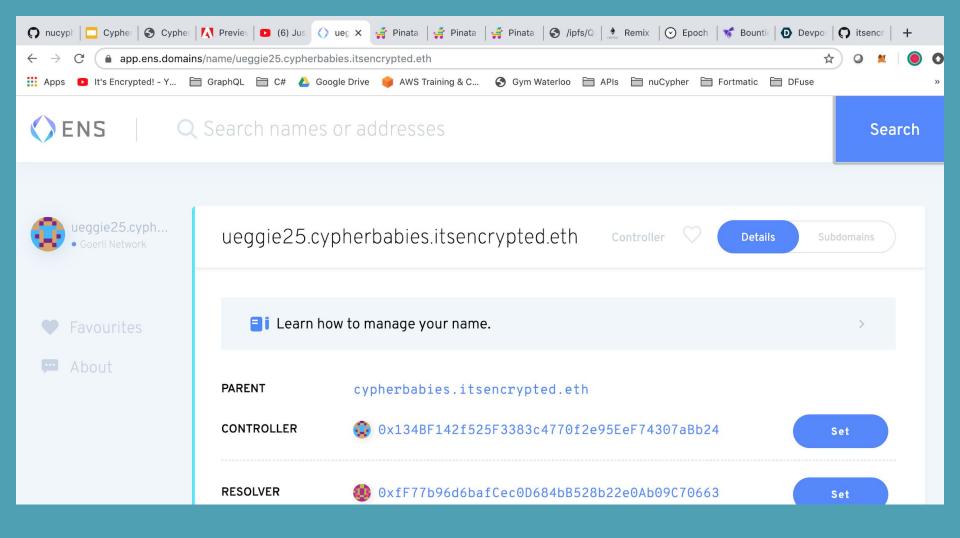


Deployment of 9 ERC721 at Goerli - gas costs





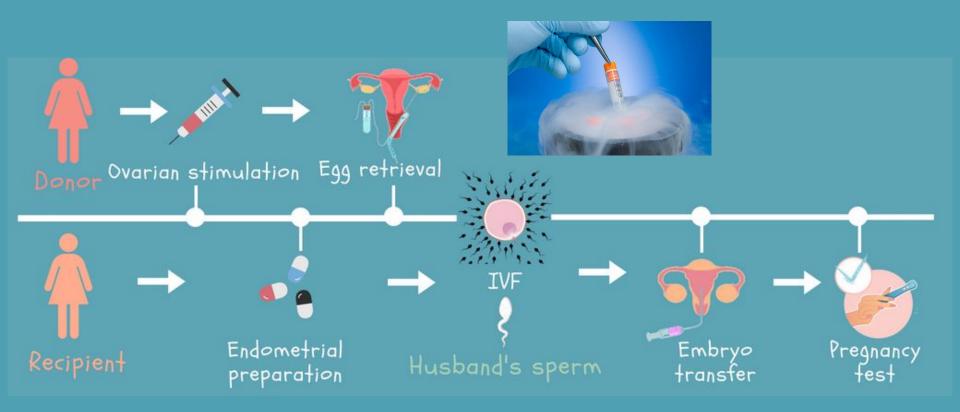
Usage of ENS for each uEggie to have a "human readable" name instead of an ETH address



Recipient Couple



The Procedure



NFTS

Medical Data

Trade

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)

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.