Notes 27-Mar-2023

Registration: is done!

* Dice of 0.6
* Use the first results, make sure we use only these results for all

Transfer learning

* Weights of ResNet 50: how to connect to our U-Net?
  + Also looks more or less ok
  + Starts with 0.5 of training loss
  + Not sure if the weights are used in the correct way
  + Not sure How much info can we get from the imagenet
  + Got a warning with this one, but we can ignore it
  + 🡪 we will use this one
* Model of github
  + Training loss going to 0 so looks ok
* Doesn’t really matter if the layers don’t match exactly

GAN

* Discriminator did not give correct output, fixed now that it gives an array with proabibiity of real of fake
* Loss: BCE loss

Next steps

* Try different losses
* Once generator is trained: put in masks and noise and it should be made
* Registration: results; dice and add some images; **Giulia**. Discussion section; we should start with this; **Marissa**.
* SPADE: only do this if we have time. Otherwise add it into the discussion for future work.
  + If it turns out to be easy (work within 3 hours) then we add it, but if not then we leave it out.

Notes Cian

* Mask very difficult to use
* Label is used in spade layers
  + Label is an image
  + Typically the segmentation is not used as input to generator
* Add spade layers to vae?
* **Paula**: try to implement SPADE into the VAE -> Monday
* **Esmée**: try to implement SPADE into the GAN, with segmentation masks as labels -> Monday
* **Lars:** try GAN with only images as input, no masks
* **Giulia**: based on what Paula and Esmée did today, work on Tuesday