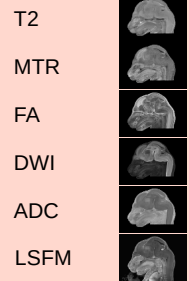


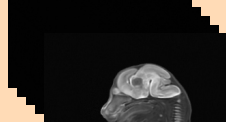
## Template generation

### Multi-modal acquisition

#### Modalities



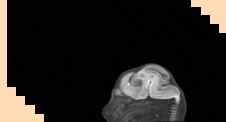
Specimen 1



Specimen 2



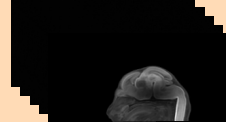
Specimen 3



Specimen 4



Specimen 5

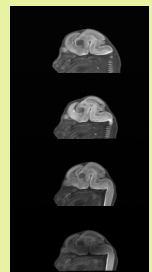


... Specimen N

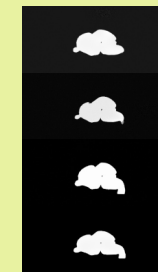


### Preprocessing

#### N4 + denoise

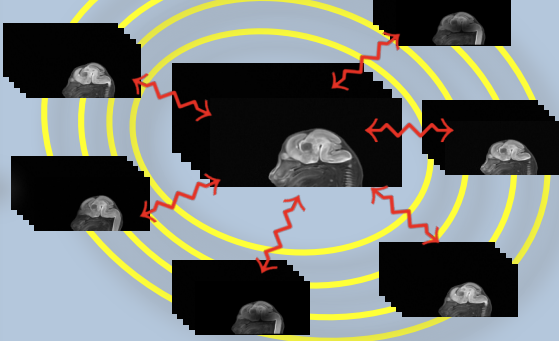


#### Brain extraction



```
ants.n4_bias_field_correction
ants.denoise_image
antspynet.mouse_brain_extraction
```

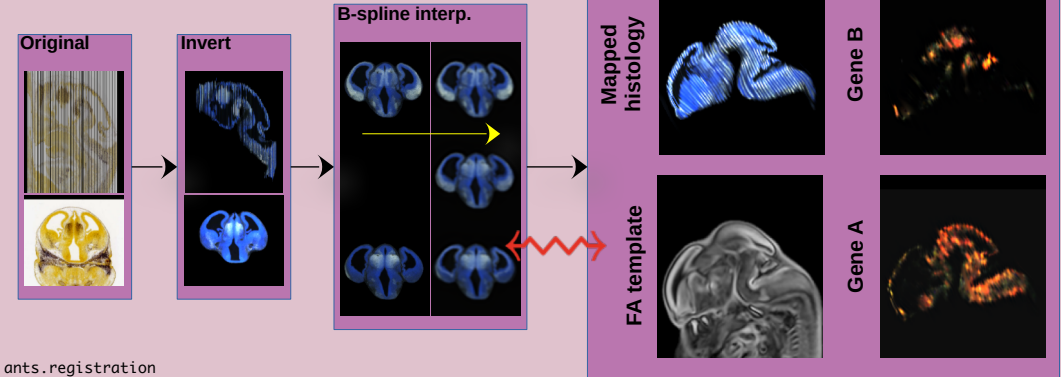
### Multi-modal template generation



```
ants.build_template
```

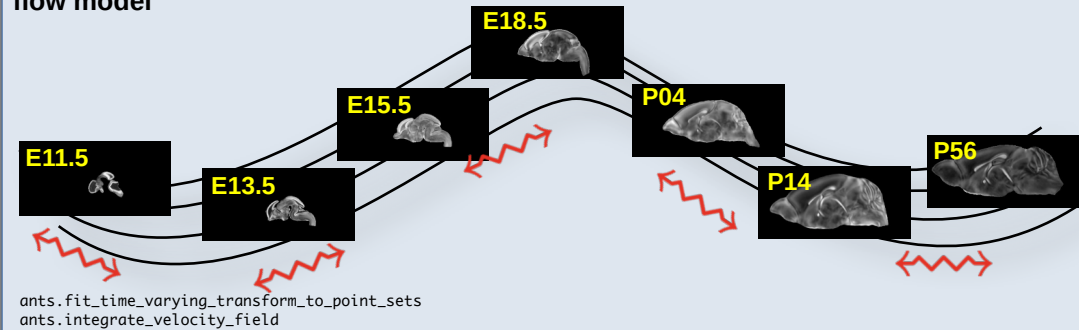
## Template-based applications

### Template gene expression mapping



```
ants.registration
ants.apply_transforms
ants.fit_bspline_object_to_scattered_data
```

### Developmental CCF velocity flow model



```
ants.fit_time_varying_transform_to_point_sets
ants.integrate_velocity_field
```