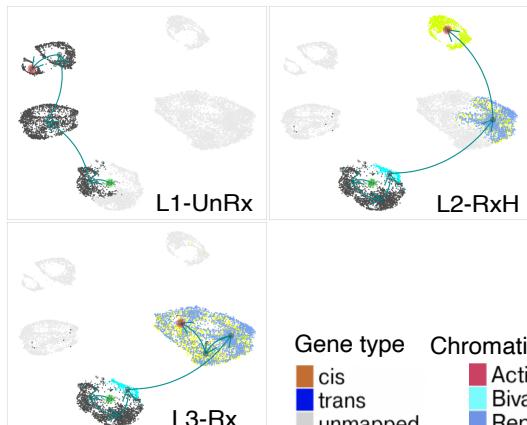


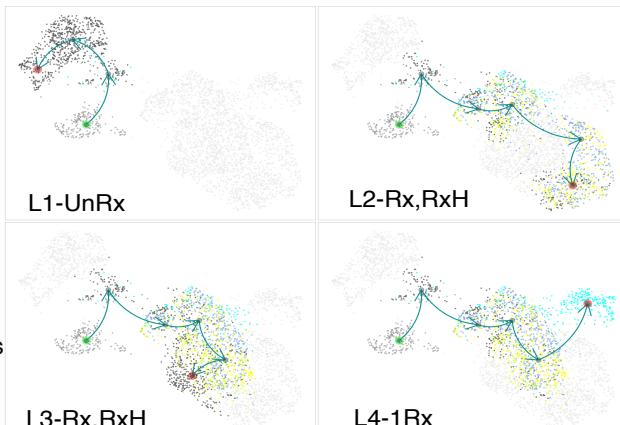
**a** 

**Pt4**

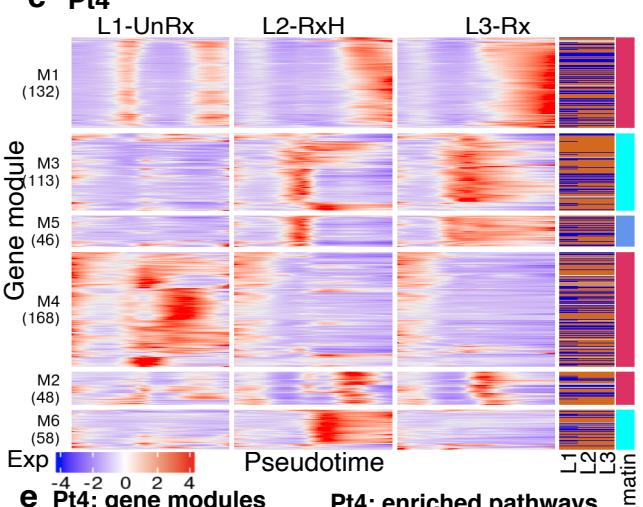


**b** 

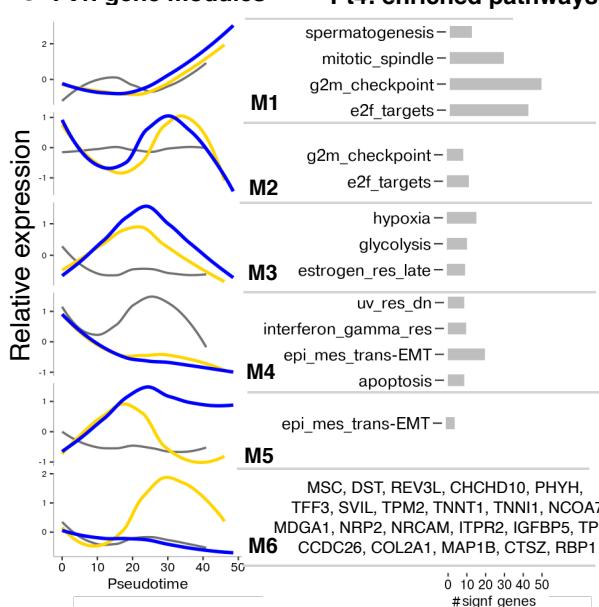
**Pt5**



**C Pt4**



**e Pt4: gene modules**



**Pt4: enriched pathways**

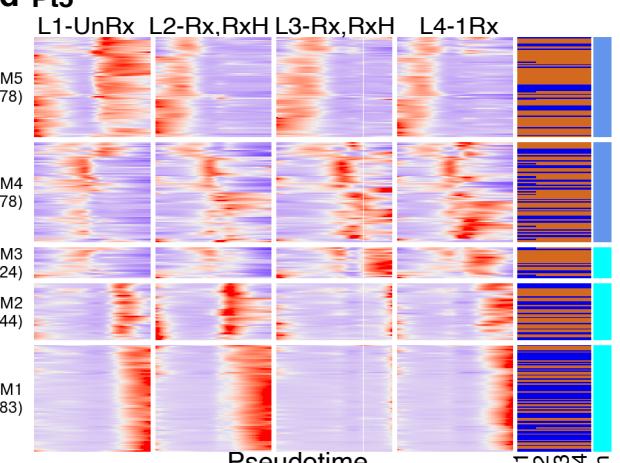
Chromatin

- spermatogenesis —
- mitotic\_spindle —
- g2m\_checkpoint —
- e2f\_targets —
  
- g2m\_checkpoint —
- e2f\_targets —
  
- hypoxia —
- glycolysis —
  
- estrogen\_res\_late —
- uv\_res\_dn —
- interferon\_gamma\_res —
- epi\_mes\_trans-EMT —
- apoptosis —
  
- epi\_mes\_trans-EMT —

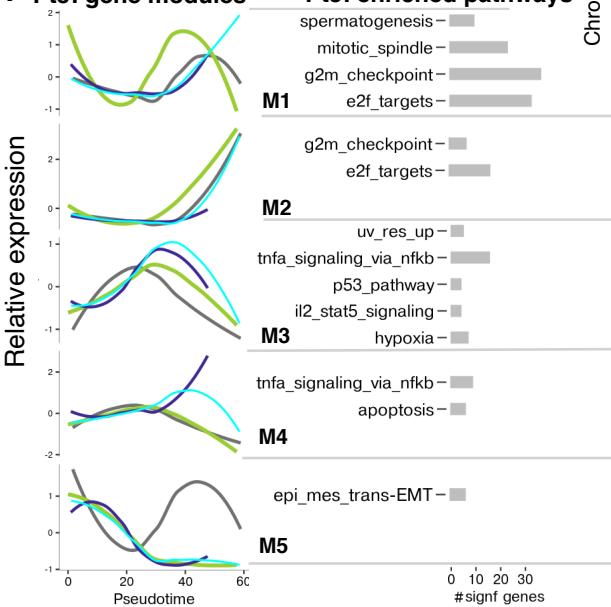
MSC, DST, REV3L, CHCHD10, PHYH, TFF3, SVIL, TPM2, TNNT1, TNNI1, NCOA7 MDGA1, NRP2, NRCCAM, ITPR2, IGFBP5, TPM1 CCDC26, COL2A1, MAP1B, CTSZ, RBP1

lineage — L1-UnRx — L2-RxH — L3-Rx

**d Pt5**



**f Pt5: gene modules**



**Pt5: enriched pathways**

Chromatin

- spermatogenesis —
- mitotic\_spindle —
- g2m\_checkpoint —
- e2f\_targets —
  
- g2m\_checkpoint —
- e2f\_targets —
  
- uv\_res\_up —
- tnfa\_signaling\_via\_nfkB —
- p53\_pathway —
- il2\_stat5\_signaling —
- hypoxia —
  
- tnfa\_signaling\_via\_nfkB —
- apoptosis —
  
- epi\_mes\_trans-EMT —