

## Supplementary Movie Legends

Supplementary Movie 1. Tracking of TVC migration in control conditions. Epidermis is marked with *EfnB1>hCD4::mCh*, TVC nuclei are marked with *Mesp>H2B::GFP*. Temporal step = 3.4 minutes.

Supplementary Movie 2. Tracking of TVC migration under *Ddr<sup>dn</sup>* conditions. Epidermis is marked with *EfnB1>hCD4::mCh*, TVC nuclei are marked with *Mesp>H2B::GFP*. Temporal step = 3.4 minutes

Supplementary Movie 3. Tracking of TVC migration under *Vegfr<sup>dn</sup>* conditions. Epidermis is marked with *EfnB1>hCD4::mCh*, TVC nuclei are marked with *Mesp>H2B::GFP*. Temporal step = 3.4 minutes

Supplementary Movie 4. Tracking of TVC migration under *Fgfr<sup>dn</sup>* conditions. Epidermis is marked with *EfnB1>hCD4::mCh*, TVC nuclei are marked with *Mesp>H2B::GFP*. Temporal step = 3.4 minutes

Supplementary Movie 5. Tracking of TVC migration under *Egfr<sup>dn</sup>* conditions. Epidermis is marked with *EfnB1>hCD4::mCh*, TVC nuclei are marked with *Mesp>H2B::GFP*. Temporal step = 3.4 minutes