

Title: Supplementary Movie 1:

Description: 3D LiFT-FRAP of sodium fluorescein in 55% glycerol solution. The volume was $76\ \mu\text{m} \times 76\ \mu\text{m} \times 76\ \mu\text{m}$ and volume rate was 8 Hz. A total of 30 volumes of normalized postbleaching images were displayed.

Title: Supplementary Movie 2:

Description: 3D LiFT-FRAP of sodium fluorescein in 80% glycerol solution. The volume was $76\ \mu\text{m} \times 76\ \mu\text{m} \times 76\ \mu\text{m}$ and volume rate was 8 Hz. A total of 76 volumes of normalized postbleaching images were displayed.

Title: Supplementary Movie 3:

Description: 3D LiFT-FRAP of FD10 in 60% glycerol solution. The volume was $76\ \mu\text{m} \times 76\ \mu\text{m} \times 76\ \mu\text{m}$ and volume rate was 8 Hz. A total of 76 volumes of normalized postbleaching images were displayed.

Title: Supplementary Movie 4:

Description: 3D LiFT-FRAP of FD20 in in-situ, native porcine cornea. The volume was $76\ \mu\text{m} \times 76\ \mu\text{m} \times 76\ \mu\text{m}$ and volume rate was 8 Hz. A total of 40 volumes of normalized postbleaching images were displayed.

Title: Supplementary Movie 5:

Description: 3D LiFT-FRAP of sodium fluorescein in healthy rat tail tendon. The volume was $76\ \mu\text{m} \times 76\ \mu\text{m} \times 76\ \mu\text{m}$ and volume rate was 8 Hz. A total of 70 volumes of normalized postbleaching images were displayed.

Title: Supplementary Movie 6:

Description: 3D LiFT-FRAP of FD20 in fiber-aligned scaffold. The volume was $76\ \mu\text{m} \times 76\ \mu\text{m} \times 76\ \mu\text{m}$ and volume rate was 8 Hz. A total of 76 volumes of normalized postbleaching images were displayed.