Figure 1: Schematic representation of the microfluidic device for coculture and migration studies.

**A.** Top view of the microfluidic device showing the main and branched channels, inlets, and outlets.

- **Main channel**: A central channel for fluid flow.
- **Branched channel**: Side channels branching off from the main channel.
- **Inlets**: Points for fluid introduction (Inlet 1, Inlet 2, Inlet 3, Inlet 4, Inlet 5).
- **Outlet**: Point for fluid collection.

**B.** Photograph of the microfluidic device showing its physical structure.

**C.** Fluorescence images of the cell distribution within the device, demonstrating the migration patterns.

**D.** Close-up view of the cell distribution in different regions of the microfluidic device.

**E.** Diagram illustrating the steps of the coculture and migration process:

1. **PBS**: PBS solution introduced into the device.
2. **PEI**: PEI coating applied on the substrate.
3. **Medium**: Growth medium for cell culture.
4. **PEI**: Further PEI application.
5. **Coculture**: Cells co-cultured within the device.
6. **Migration**: Migration of cells through the PEI-coated surface.

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Dead cell (%) vs. Concentration of Triton X-100 (%)

F

Dead cell (%) vs. Concentration of mitomycin C (µg /ml)

G

Dead cell (%) vs. Position across channel (X*)

E

A. Gradient - 0%

B. 0.005%

C. 0.010%

D. 0.020%

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