Electronic Supplementary Information

Poly(vinylidene fluoride)-graft-Poly(dopamine acrylamide) Copolymer
For Surface Functionalizable Membranes

Li Qun Xu¹, Jiu Cun Chen¹, Rong Wang¹, Koon-Gee Neoh¹, En-Tang Kang¹*, Guo Dong Fu²*

¹ Department of Chemical & Biomolecular Engineering
National University of Singapore
Kent Ridge, Singapore 117576

² School of Chemistry and Chemical Engineering
Southeast University
Jiangning District, Nanjing, Jiangsu Province, P.R. China 211189

* To whom correspondence should be addressed:
E-mail: cheket@nus.edu.sg (ETK); fu7352@seu.edu.cn (GDF)
Figure S1: $^{19}$F NMR spectra of (a) PVDF-g-PPFA and (b) PVDF-g-PDA copolymers.
**Figure S2**: SEM image of the pristine PVDF membrane.
Fig. S3. SEM images of the cross-section of the (a) PVDF-g-PDA, (b) PVDF-g-PDA/AgNPs, (c) PVDF-g-PDA/AuNPs, (d) PVDF-g-PDA/PEG, (e) PVDF-g-PDA/PNIPAM and (f) PVDF-g-PDA/HPG MF membranes.
**Fig. S4.** Thermogravimetric analysis (TGA) curves of the (a) PVDF and (b) PVDF-g-PDA MF membranes at a heating rate of 15 °C/min in air.
Fig. S5. Stress-strain relationship for the PVDF and PVDF-g-PDA MF membranes.
Fig. S6. Temperature-dependent water permeability through the PVDF-g-PDA and PVDF-g-PDA/PNIPAM MF membranes under an imposed pressure of 0.1 kg/cm² in a microfiltration cell (Toyo Roshi UHP-25 Japan).
Figure S7. Relative cell viability of 3T3 fibroblasts and raw macrophages after 72 h of culturing in DMEM medium pretreated with the PVDF-\textit{g}-PDA MF membrane for 1, 3, 7, 10 and 14 days.