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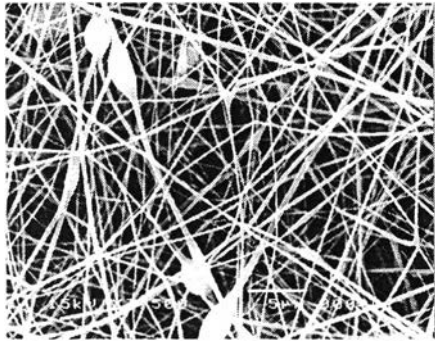
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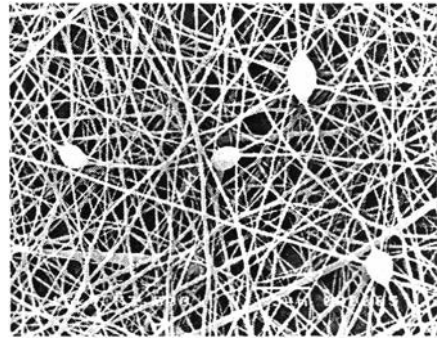
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APPENDICES

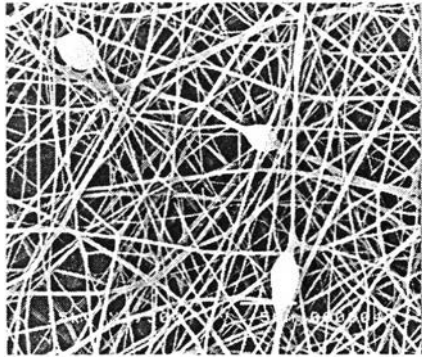
APPENDIX A



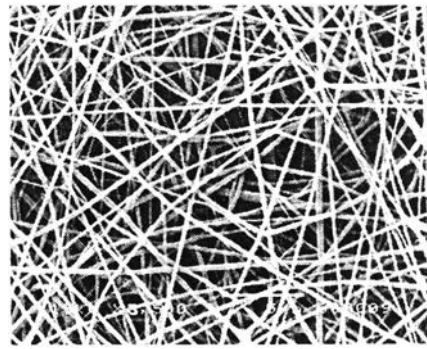
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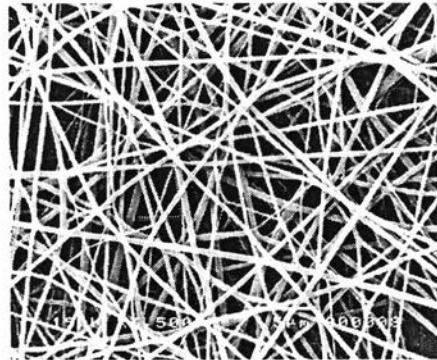
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48% (w/v)

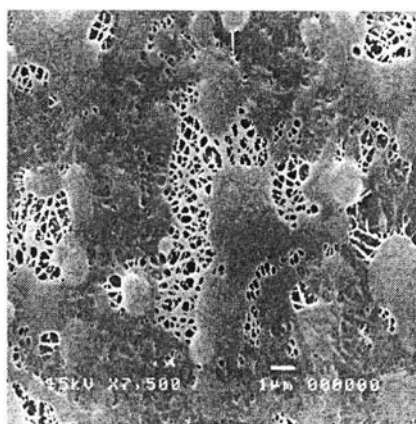


50% (w/v)

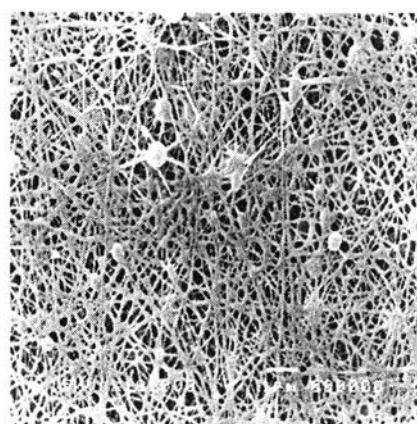


52% (w/v)

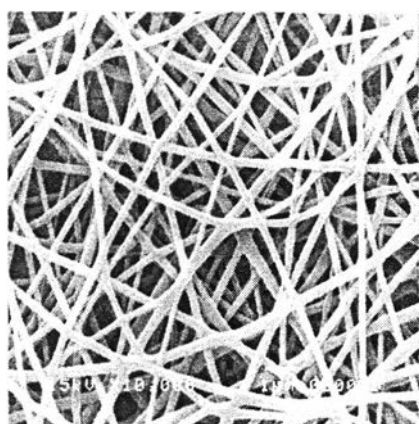
Figure A1 SEM micrographs (at 3500X) of as-electrospun SF fabricated by electrospinning at applied voltage of 25 kV with a constant spinning distance of 15 cm. The Scale bar shown is for 5 μm .



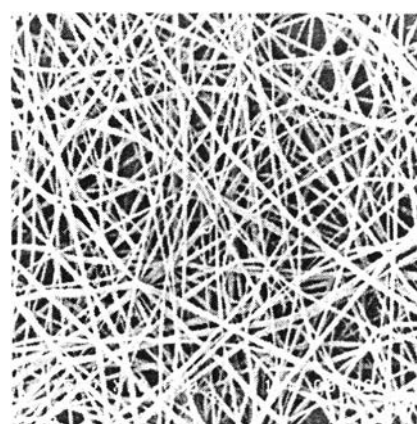
15 kV (7500X)



20 kV (10000X)



25 kV (10000X)



30 kV (10000X)

Figure A2 SEM micrographs of as-electrospun SF fabricated by electrospinning at the concentration of 50 % (w/v) with a constant spinning distance of 15 cm. The Scale bar shown is for 1 μm .

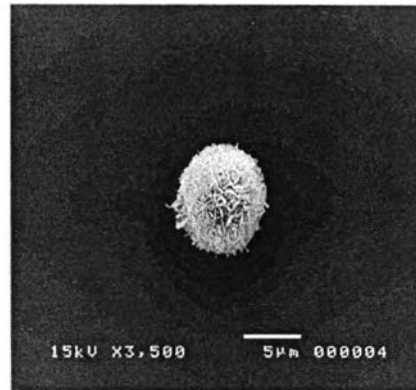
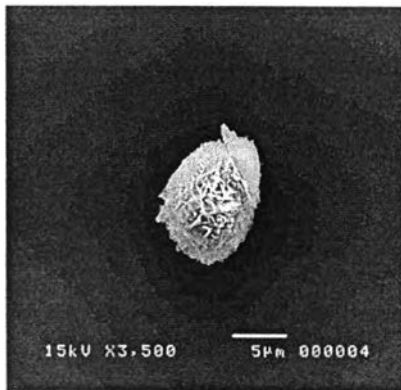
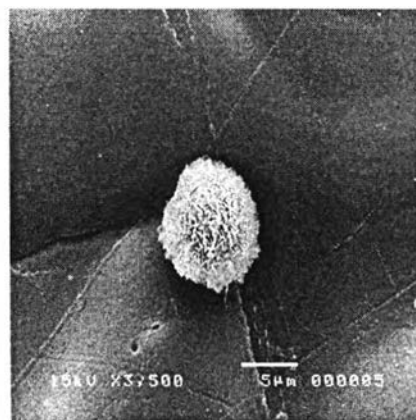
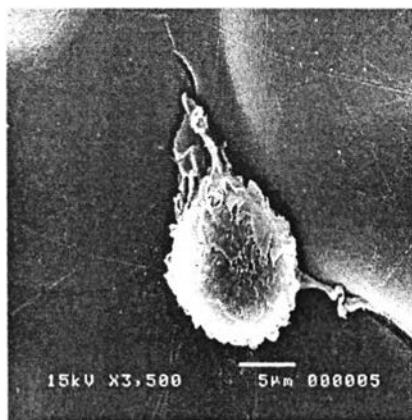
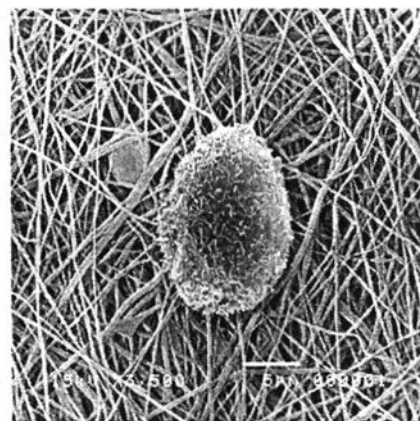
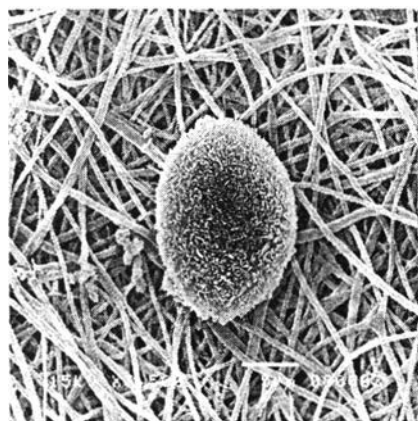
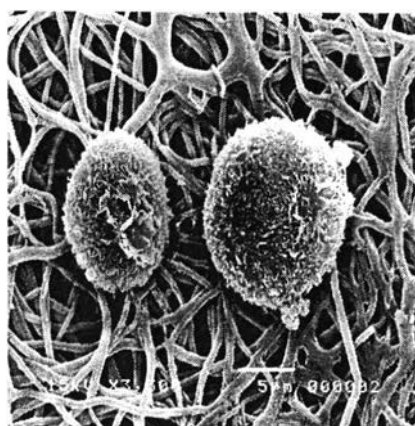
**Control****Film****SF**

Figure A3 SEM micrographs (at 3500X) of the HaCaT cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 2 h. The Scale bar shown is for 5 µm.



SF-HA

Figure A3 (continued) SEM micrographs (at 3500X) of the HaCaT cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 2 h. The Scale bar shown is for 5 μm .

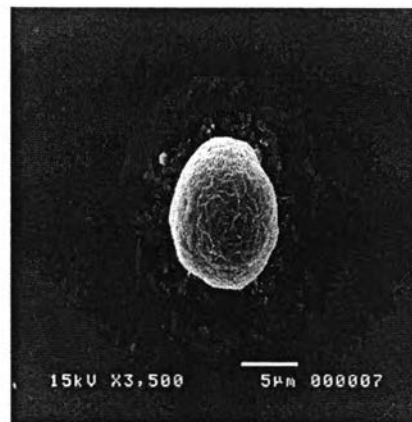
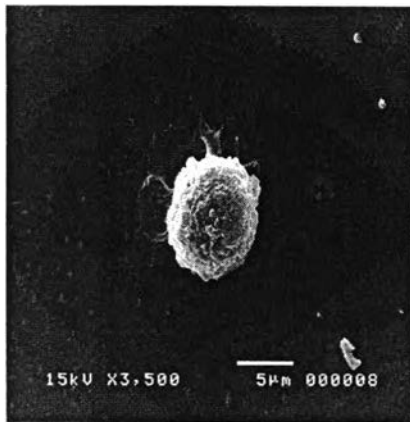
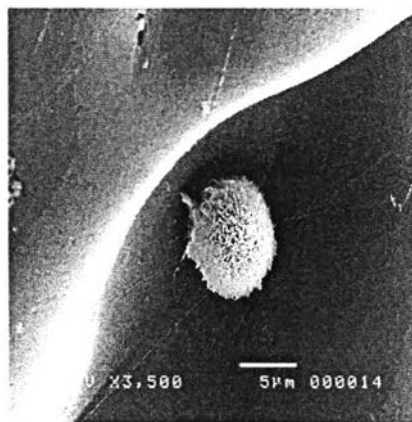
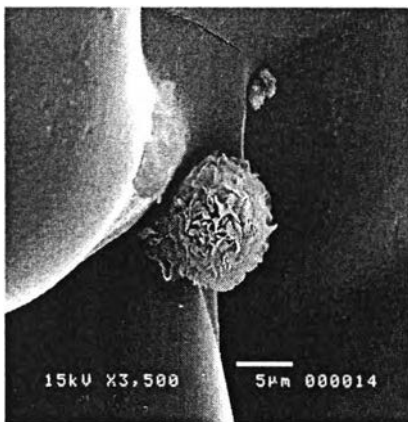
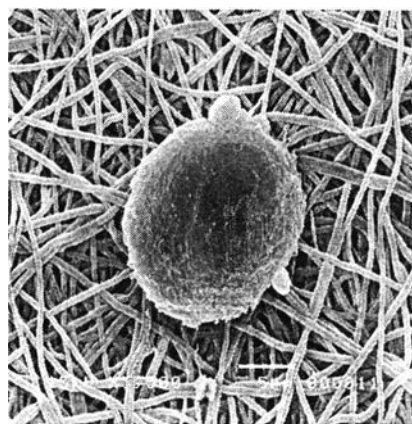
**Control****Film****SF**

Figure A4 SEM micrographs (at 3500X) of the HaCaT cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 4 h. The Scale bar shown is for 5 µm.



SF-HA

Figure A4 (continued) SEM micrographs (at 3500X) of the HaCaT cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 4 h. The Scale bar shown is for 5 μm .

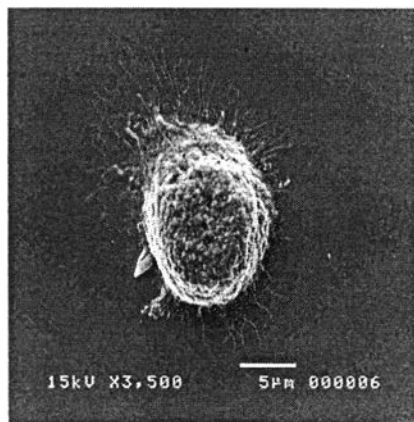
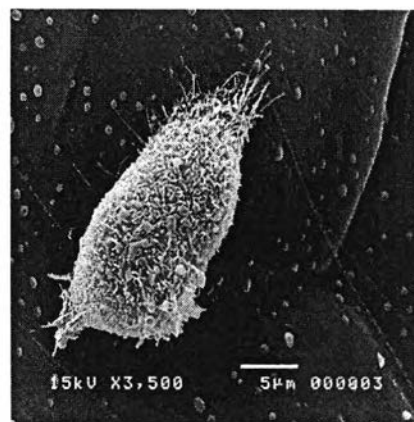
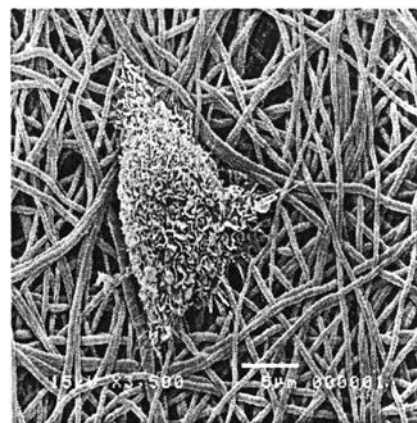
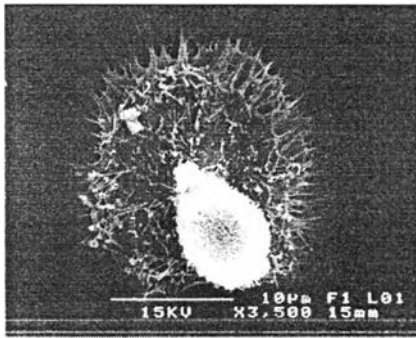
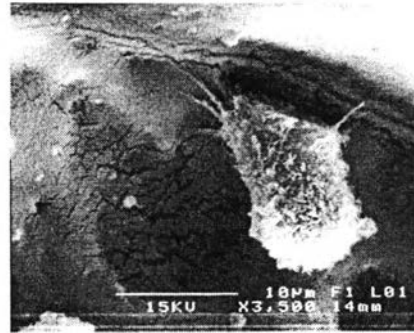
**Control****SF Film****SF****SF-HA**

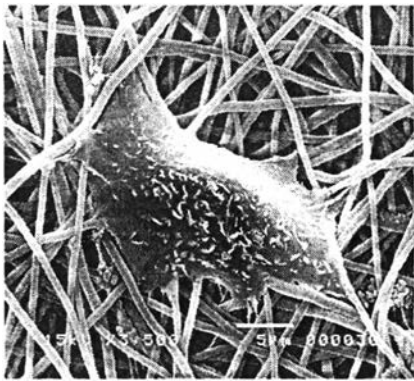
Figure A5 SEM micrographs (at 3500X) of the HaCaT cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 6 h. The Scale bar shown is for 5 μm.



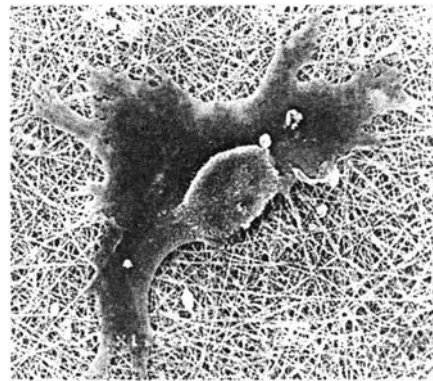
Control(3500X), scale bar = 10 μ m



Film(3500X), scale bar = 10 μ m

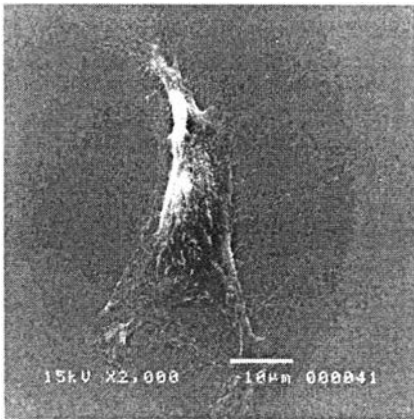


SF (3500X), scale bar = 5 μ m

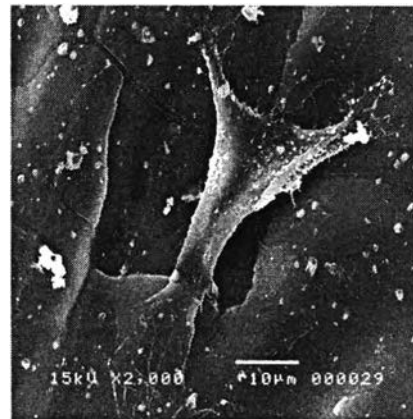


SF-HA (1500X), scale bar = 10 μ m

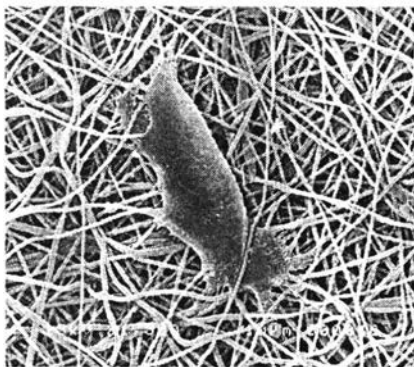
Figure A6 SEM micrographs of the HFF cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 2 h.



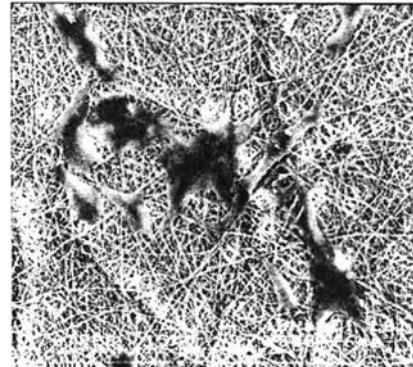
Control (3500X), scale bar = 10 μm



Film (2000X), scale bar = 10 μm

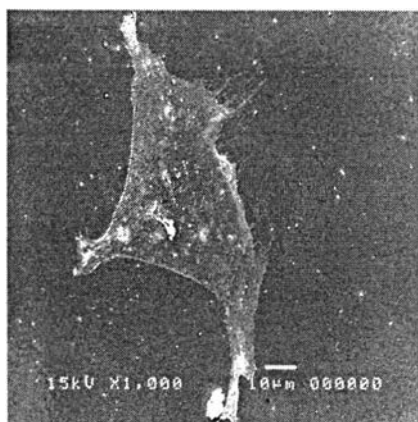


SF (1500X), scale bar = 10 μm

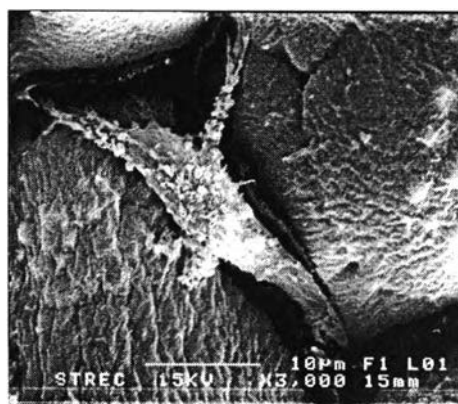


SF-HA (500X), scale bar = 10 μm

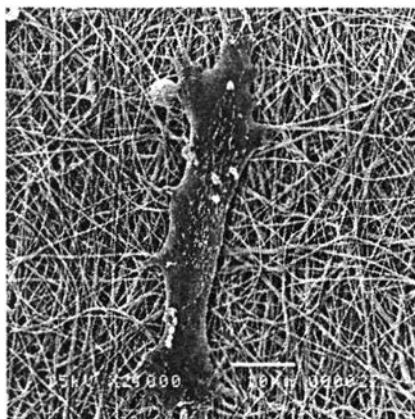
Figure A7 SEM micrographs of the HFF cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 4 h.



Control (1000X)



Film (3000X)



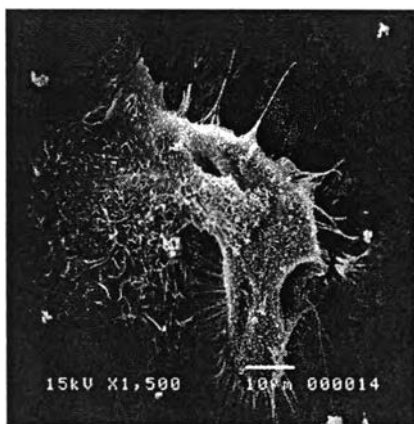
SF (2000X)



SF-HA (2500X)

Figure A8 SEM micrographs of the HFF cell attach on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 6 h.

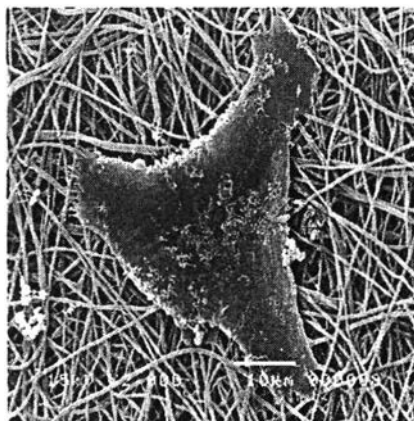
The Scale bar shown is for 10 μm.



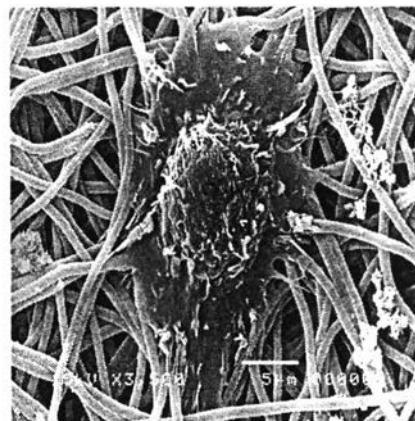
Control (1500X), scale bar = 10 µm



Film (3500X), scale bar = 5 µm

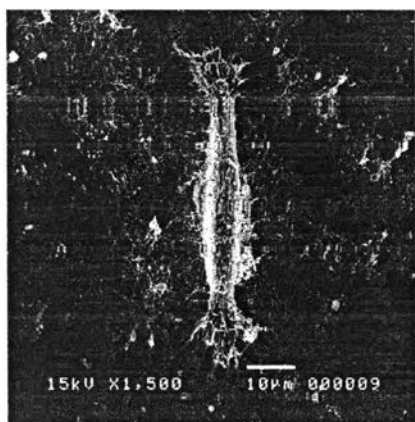


SF (2000X), scale bar = 10 µm

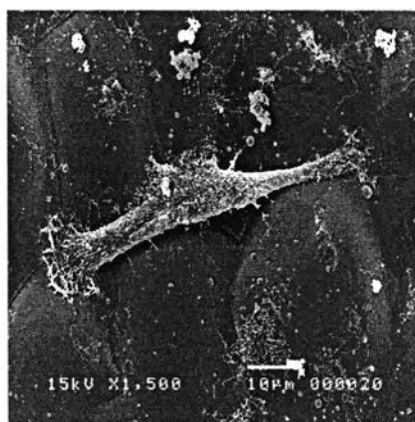


SF-HA (3500X), scale bar = 5 µm

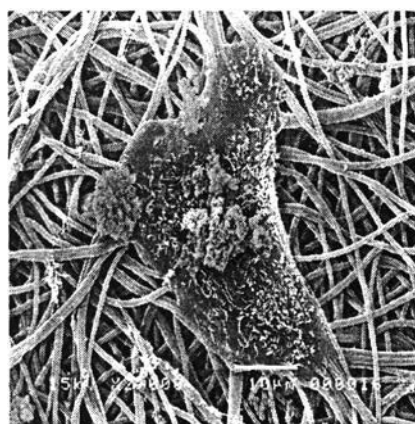
Figure A9 SEM micrographs of the HaCaT cell proliferate on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 1 day.



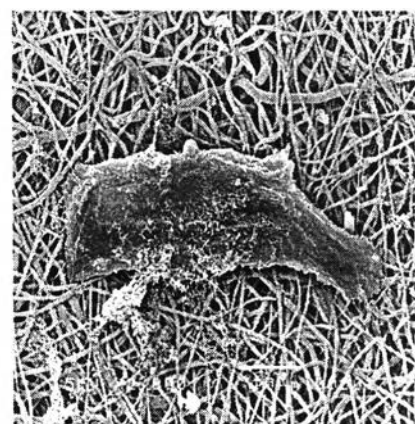
Control (1500X), scale bar = 10 µm



Film (1500X), scale bar = 10 µm

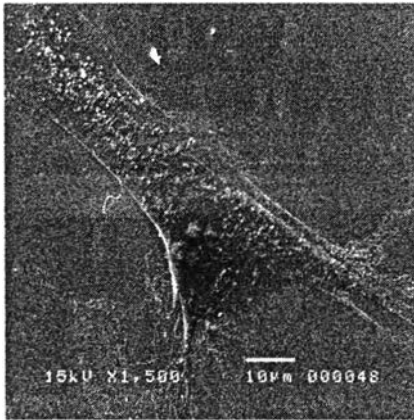


SF (2500X), scale bar = 10 µm

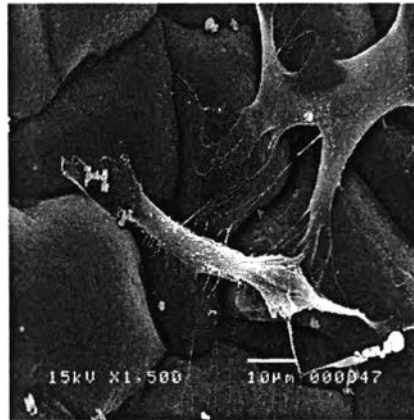


SF-HA (2000X), scale bar = 10 µm

Figure A10 SEM micrographs of the HaCaT cell proliferate on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 2 day.



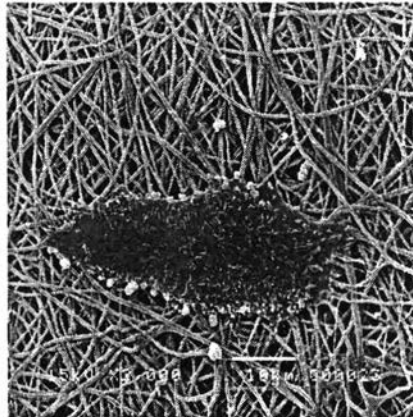
Control (1500X), scale bar = 10 μm



SF Film (1500X), scale bar = 10 μm

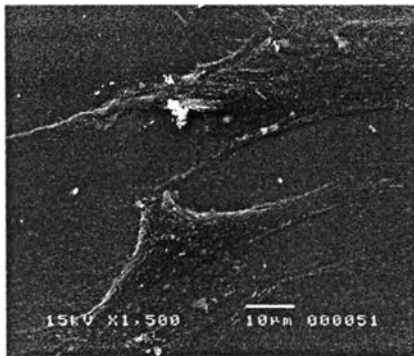


SF (2000X), scale bar = 10 μm

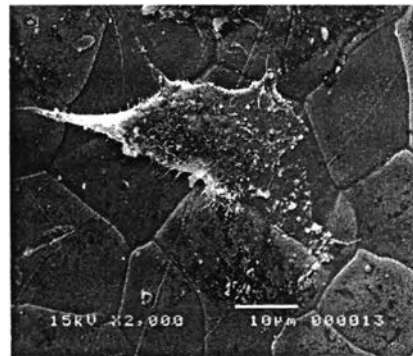


SF-HA (2000X), scale bar = 10 μm

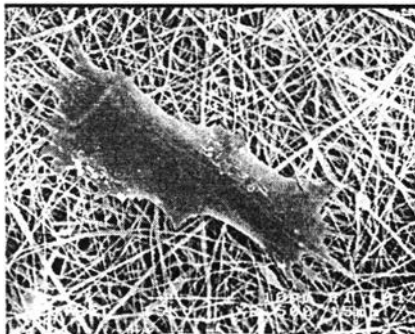
Figure A11 SEM micrographs of the HFF cell proliferate on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 1 day.



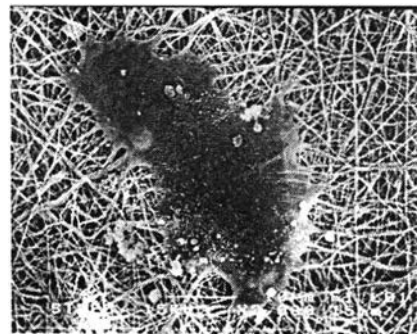
Control (1500X), scale bar = 10 μm



SF Film (2000X), scale bar = 10 μm



SF (2500X), scale bar = 10 μm



SF-HA (2000X), scale bar = 10 μm

Figure A12 SEM micrographs of the HFF cell proliferate on the surface of SF film, electrospun SF and SF-HA scaffolds comparison with control at incubated time of 2days.

APPENDIX B

Table B1 Absorbance of cytotoxicity of L929 cells seeded on as-prepared materials in comparison with control.

Type	Abs.1	Abs.2	Abs.3	Mean	SD
Control	0.870	0.864	0.882	0.872	0.009
SF fiber	0.844	0.836	0.83	0.837	0.007
SF-HA	0.876	0.916	0.868	0.887	0.026
SF film	0.793	0.84	0.837	0.823	0.026

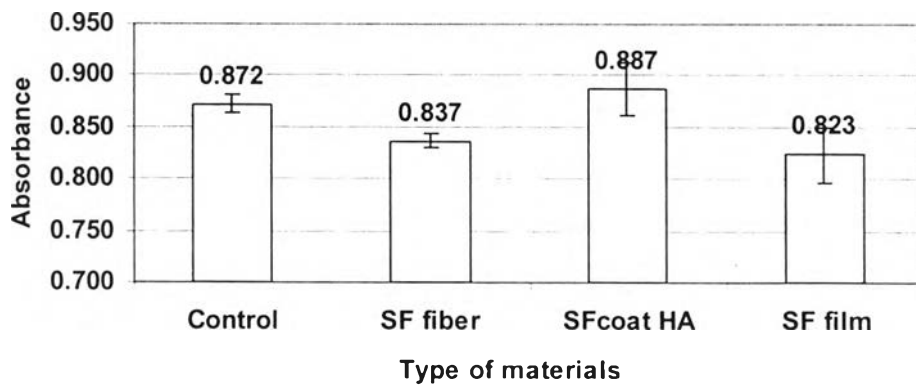


Figure B1 Comparison of cytotoxicity of as-prepared materials to L929 cells with control.

Table B2 Absorbance of cell attachment of HaCaT cells seeded on as-prepared materials in comparison with control.

Type	2 h.	4 h.	6 h.	SD_2 h.	SD_4 h.	SD_6 h.
control	0.044	0.082	0.130	0.001	0.002	0.001
film	0.114	0.121	0.117	0.007	0.015	0.001
SF fiber	0.122	0.137	0.127	0.015	0.004	0.007
SF-HA	0.223	0.262	0.166	0.028	0.012	0.006

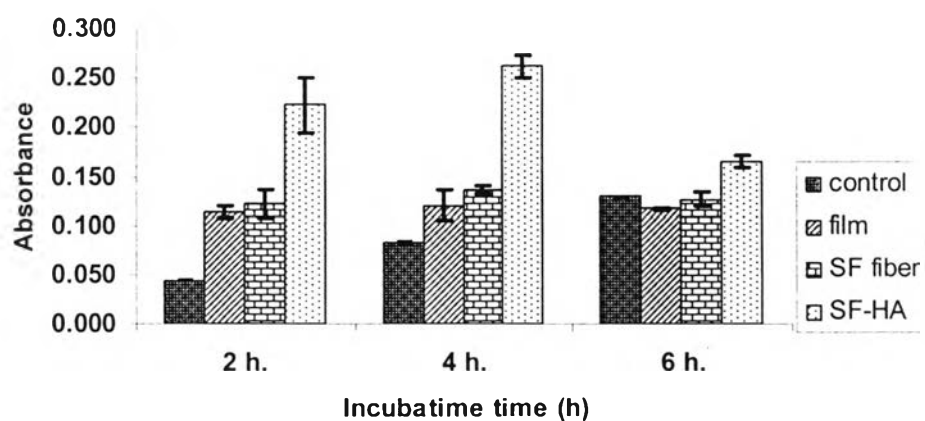


Figure B2 Attachment of HaCaT cell on control, SF film, as-spun SF and SF-HA scaffolds as a function of time in culture.

Table B3 Absorbance of cell proliferation of HaCaT cells seeded on as-prepared materials in comparison with control.

Type	1 Day	2 Days	3 Days	SD_1 Day	SD_2 Days	SD_3 Days
control	0.369	0.497	0.697	0.016	0.027	0.033
film	0.391	0.409	0.381	0.059	0.062	0.075
SF fiber	0.412	0.469	0.446	0.042	0.044	0.029
SF-HA	0.512	0.557	0.457	0.041	0.039	

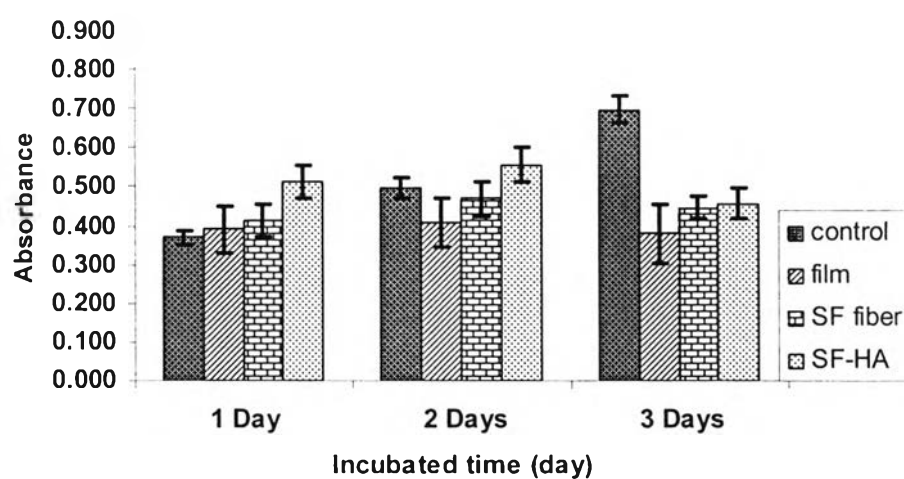


Figure B3 Proliferation of HaCaT cell on control, SF film, as-spun SF and SF-HA scaffolds as a function of time in culture.

Table B4 Absorbance of cell attachment of HFF cells seeded on as-prepared materials in comparison with control.

Type	2 h.	4 h.	6 h.	SD_2 h.	SD_4 h.	SD_6 h.
control	0.099	0.156	0.138	0.026	0.033	0.018
film	0.211	0.210	0.158	0.015	0.004	0.008
SF fiber	0.222	0.250	0.183	0.014	0.005	0.002
SF-HA	0.349	0.339	0.329	0.018	0.024	0.004

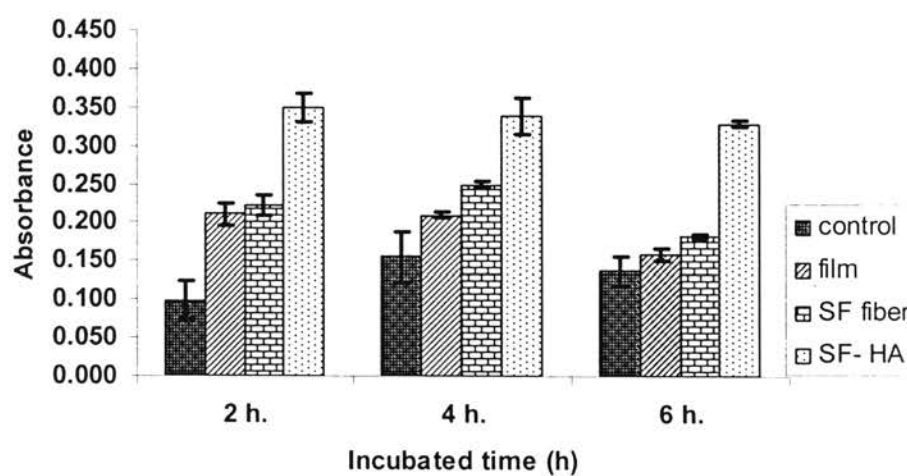


Figure B4 Attachment of HFF cell on control, SF film, as-spun SF and SF-HA scaffolds as a function of time in culture.

ต้นฉบับ หน้าขาดหาย

VITA

Siriporn Leanganankhun was born on 14 August 1982 at Bangkok province. She is a daughter of Mr. Suradej Leanganankhun and Ms. Aree Leanganankhun. She have got one elderer brother named Mr. Supinyo Leanganankhun. In 2000, she graduated from Satri Sri Suriyothai high school, then she kept on her study on Bachelor' s degree of Science, the major of Chemistry, at Mahidol University. In 2004, after she graduated from Mahidol University, she still wanted to learn something new and she was very interested in polymer science. Therefore, she decided to study on Master's degree of Science, in the field of Applied Polymer Science and Textile Technology, the major of Materials Science, at Chulalongkorn University. She graduated from Chulalongkorn University in 2006.

