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APPENDICES

APPENDIX A

Table A1 The absorbance data of indirect cytotoxicity test from MTT assays

Replicates	Absorbance		
	Controls	**Films**	**Fibrous mats**
1	0.817 0.813 0.825 0.825	0.868 0.775 0.850 0.792	0.790 0.844 0.880 0.811
Average	**0.820**	**0.821**	**0.831**
Standard deviation	**0.006**	**0.045**	**0.039**
2	0.772 0.782 0.789 0.766	0.656 0.625 0.748 0.746	0.766 0.731 0.756 0.745
Average	**0.777**	**0.694**	**0.750**
Standard deviation	**0.010**	**0.063**	**0.015**
3	0.853 0.859 0.843 0.848	0.897 0.910 0.903 0.887	0.935 0.906 0.952 0.929
Average	**0.851**	**0.899**	**0.931**
Standard deviation	**0.007**	**0.010**	**0.019**
Average **Standard deviation**	**0.816** **0.008**	**0.805** **0.039**	**0.837** **0.024**

Table A2 The absorbance data of direct cytotoxicity test from MTT assays

Replicates	Absorbance		
	Controls	**Films**	**Fibrous mats**
1	0.784	0.620	0.714
	0.795	0.643	0.721
	0.800	0.648	0.719
	0.786	0.651	0.717
Average	**0.791**	**0.641**	**0.718**
Standard deviation	**0.008**	**0.014**	**0.003**
2	0.735	0.557	0.609
	0.747	0.571	0.579
	0.748	0.579	0.581
	0.725	0.577	0.603
Average	**0.739**	**0.571**	**0.593**
Standard deviation	**0.011**	**0.010**	**0.015**
3	0.683	0.478	0.566
	0.717	0.457	0.543
	0.688	0.447	0.561
	0.720	0.466	0.532
Average	**0.702**	**0.462**	**0.551**
Standard deviation	**0.019**	**0.013**	**0.016**
Average	**0.744**	**0.558**	**0.620**
Standard deviation	**0.013**	**0.012**	**0.011**

Table A3 The absorbance data of Schwann cell attachment on the controls at the different times in culture from MTT assays

Replicates	Absorbance for the controls				
	Times in culture (h)				
	1	2	4	8	16
1	0.258	0.327	0.324	0.395	0.572
	0.270	0.259	0.385	0.413	0.619
	0.273	0.281	0.367	0.366	0.549
	0.291	0.326	0.321	0.329	0.493
Average	**0.273**	**0.287**	**0.349**	**0.376**	**0.558**
Standard deviation	**0.014**	**0.029**	**0.032**	**0.037**	**0.052**
2	0.272	0.281	0.401	0.408	0.563
	0.270	0.247	0.316	0.375	0.551
	0.253	0.276	0.341	0.377	0.565
	0.273	0.321	0.348	0.380	0.569
Average	**0.267**	**0.281**	**0.352**	**0.385**	**0.562**
Standard deviation	**0.010**	**0.030**	**0.036**	**0.016**	**0.008**
3	0.264	0.264	0.347	0.381	0.612
	0.252	0.261	0.391	0.365	0.547
	0.256	0.299	0.365	0.417	0.626
	0.288	0.308	0.334	0.368	0.592
Average	**0.265**	**0.283**	**0.359**	**0.383**	**0.594**
Standard deviation	**0.016**	**0.024**	**0.025**	**0.024**	**0.034**
Average	**0.268**	**0.284**	**0.353**	**0.381**	**0.572**
Standard deviation	**0.013**	**0.028**	**0.031**	**0.025**	**0.032**

Table A4 The absorbance data of Schwann cell attachment on the film scaffolds at the different times in culture from MTT assays

Replicates	Absorbance for the film scaffolds				
	Times in culture (h)				
	1	**2**	**4**	**8**	**16**
1	0.263	0.323	0.3	0.489	0.572
	0.290	0.293	0.284	0.387	0.619
	0.291	0.267	0.293	0.435	0.549
	0.265	0.281	0.32	0.480	0.493
Average	**0.277**	**0.291**	**0.299**	**0.448**	**0.558**
Standard deviation	**0.015**	**0.024**	**0.015**	**0.047**	**0.052**
2	0.261	0.278	0.291	0.408	0.563
	0.257	0.305	0.288	0.44	0.551
	0.301	0.309	0.267	0.482	0.565
	0.268	0.252	0.333	0.452	0.569
Average	**0.272**	**0.286**	**0.295**	**0.446**	**0.562**
Standard deviation	**0.020**	**0.027**	**0.028**	**0.031**	**0.008**
3	0.293	0.323	0.349	0.489	0.612
	0.243	0.315	0.269	0.399	0.547
	0.245	0.255	0.276	0.461	0.626
	0.323	0.267	0.305	0.46	0.592
Average	**0.276**	**0.290**	**0.300**	**0.451**	**0.594**
Standard deviation	**0.039**	**0.034**	**0.036**	**0.038**	**0.034**
Average	**0.275**	**0.289**	**0.298**	**0.331**	**0.665**
Standard deviation	**0.025**	**0.028**	**0.026**	**0.014**	**0.035**

Table A5 The absorbance data of Schwann cell attachment on the fibrous mat scaffolds at the different times in culture from MTT assays

Replicates	Absorbance for the fibrous mat scaffolds				
	Times in culture (h)				
	1	2	4	8	16
	0.311	0.319	0.337	0.489	0.684
	0.251	0.307	0.343	0.387	0.612
1	0.265	0.293	0.359	0.435	0.599
	0.277	0.258	0.32	0.480	0.72
Average	**0.276**	**0.294**	**0.340**	**0.448**	**0.654**
Standard deviation	**0.026**	**0.026**	**0.016**	**0.047**	**0.058**
	0.248	0.333	0.356	0.408	0.591
	0.299	0.253	0.317	0.44	0.634
2	0.243	0.323	0.345	0.482	0.677
	0.305	0.249	0.325	0.452	0.722
Average	**0.274**	**0.290**	**0.336**	**0.446**	**0.656**
Standard deviation	**0.033**	**0.045**	**0.018**	**0.031**	**0.056**
	0.284	0.325	0.351	0.489	0.734
	0.315	0.303	0.341	0.399	0.653
3	0.27	0.291	0.319	0.461	0.691
	0.233	0.251	0.345	0.460	0.659
Average	**0.276**	**0.293**	**0.339**	**0.451**	**0.684**
Standard deviation	**0.034**	**0.031**	**0.014**	**0.038**	**0.037**
Average	**0.275**	**0.292**	**0.338**	**0.448**	**0.665**
Standard deviation	**0.031**	**0.034**	**0.016**	**0.038**	**0.050**

Table A6 The absorbance data of Schwann cell proliferation on the controls at the different times in culture from MTT assays

Replicates	Absorbance for the controls		
	Times in culture [day(s)]		
	1	2	3
1	0.259	0.371	0.371
	0.268	0.373	0.393
	0.270	0.383	0.397
	0.274	0.394	0.390
Average	**0.268**	**0.380**	**0.388**
Standard deviation	**0.006**	**0.011**	**0.012**
2	0.275	0.4	0.407
	0.277	0.401	0.421
	0.284	0.410	0.412
	0.288	0.414	0.416
Average	**0.281**	**0.406**	**0.414**
Standard deviation	**0.006**	**0.007**	**0.006**
3	0.300	0.417	0.441
	0.301	0.418	0.442
	0.309	0.420	0.426
	0.320	0.451	0.440
Average	**0.308**	**0.427**	**0.437**
Standard deviation	**0.009**	**0.016**	**0.008**
Average	**0.285**	**0.404**	**0.413**
Standard deviation	**0.007**	**0.011**	**0.008**

Table A7 The absorbance data of Schwann cell proliferation on the film scaffolds at the different times in culture from MTT assays

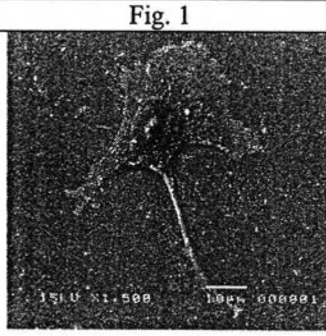
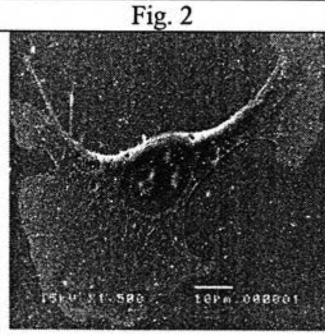
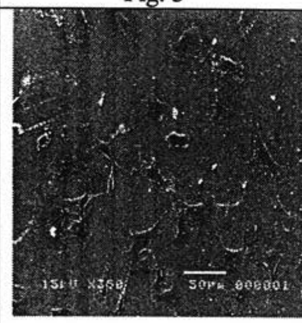
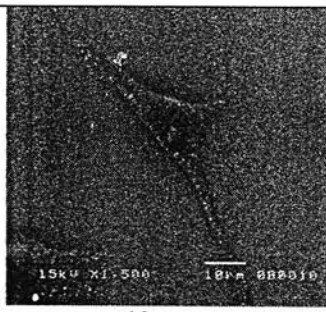
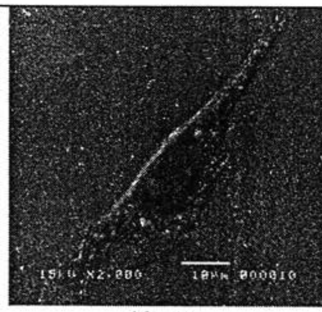
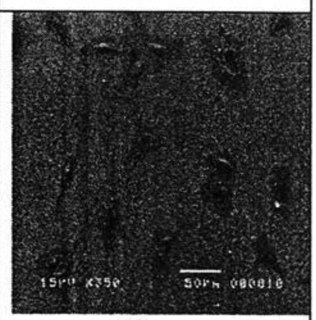
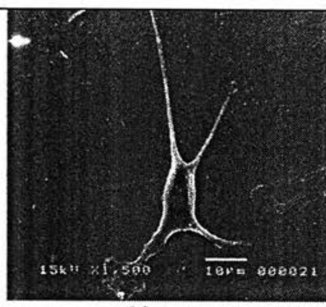
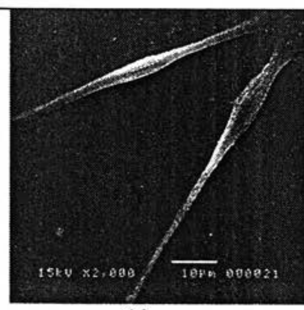
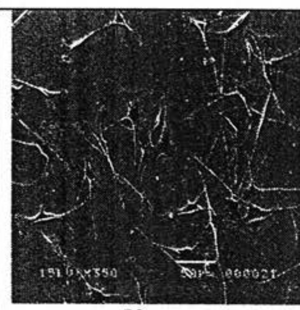
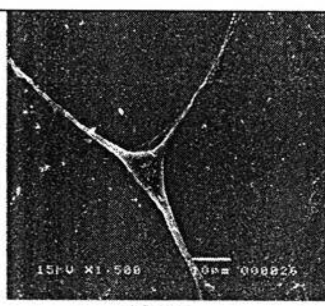
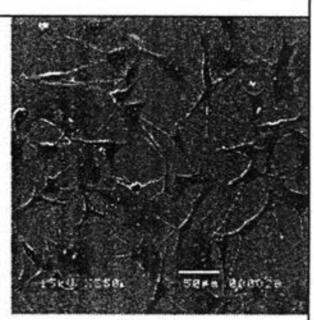
Replicates	Absorbance for the film scaffolds		
	Times in culture [day(s)]		
	1	2	3
1	0.267	0.246	0.266
	0.263	0.265	0.268
	0.255	0.270	0.276
	0.253	0.280	0.287
Average	**0.260**	**0.265**	**0.274**
Standard deviation	**0.007**	**0.014**	**0.010**
2	0.270	0.302	0.323
	0.276	0.310	0.317
	0.280	0.312	0.355
	0.296	0.315	0.345
Average	**0.281**	**0.310**	**0.335**
Standard deviation	**0.011**	**0.006**	**0.018**
3	0.305	0.331	0.388
	0.315	0.340	0.394
	0.295	0.357	0.416
	0.302	0.367	0.403
Average	**0.304**	**0.349**	**0.400**
Standard deviation	**0.008**	**0.016**	**0.012**
Average	**0.281**	**0.308**	**0.337**
Standard deviation	**0.009**	**0.012**	**0.013**

Table A8 The absorbance data of Schwann cell proliferation on the fibrous mat scaffolds at the different times in culture from MTT assays

Replicates	Absorbance for the fibrous mat scaffolds		
	Times in culture [day(s)]		
	1	2	3
1	0.242 0.240 0.249 0.238	0.295 0.296 0.298 0.306	0.367 0.358 0.348 0.367
Average	**0.242**	**0.299**	**0.360**
Standard deviation	**0.005**	**0.005**	**0.009**
2	0.267 0.260 0.268 0.274	0.336 0.307 0.313 0.326	0.358 0.357 0.367 0.385
Average	**0.267**	**0.321**	**0.367**
Standard deviation	**0.006**	**0.013**	**0.013**
3	0.303 0.299 0.309 0.296	0.348 0.354 0.374 0.384	0.417 0.412 0.424 0.448
Average	**0.302**	**0.365**	**0.425**
Standard deviation	**0.006**	**0.017**	**0.016**
Average **Standard deviation**	**0.270** **0.005**	**0.328** **0.012**	**0.384** **0.013**

APPENDIX B

Table B1 The SEM images of Schwann cells cultured on the control at the different times in culture.

Times in culture	**Controls**		
	Fig. 1	Fig. 2	Fig. 3
1 h. Scale bar =	 10 µm	 10 µm	 50 µm
2 h. Scale bar =	 10 µm	 10 µm	 50 µm
4 h. Scale bar =	 10 µm	 10 µm	 50 µm
8 h. Scale bar =	 10 µm	 10 µm	 50 µm

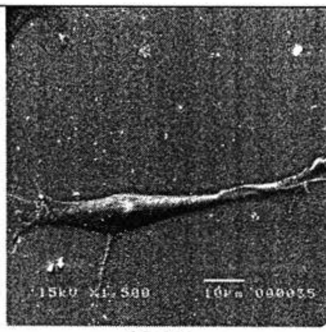
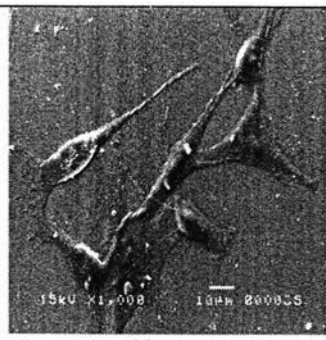
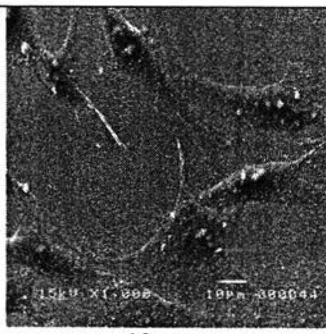
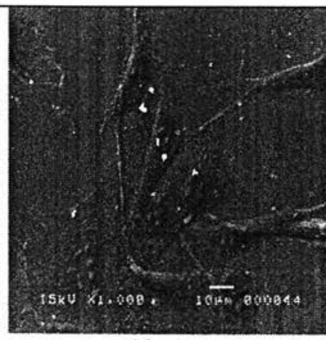
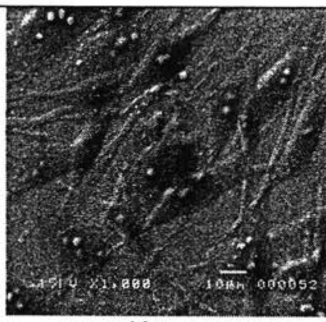
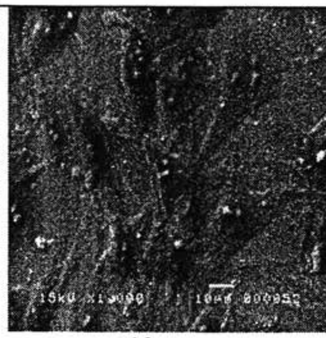
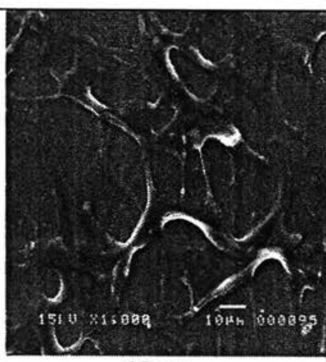
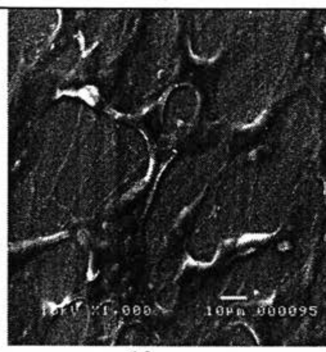
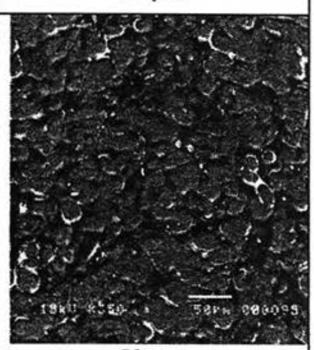
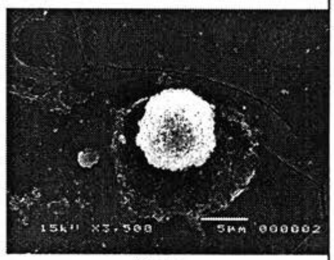
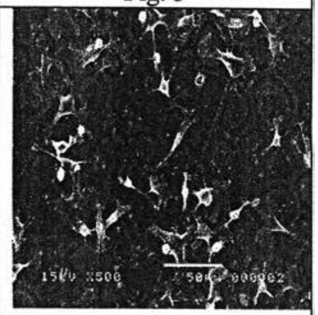
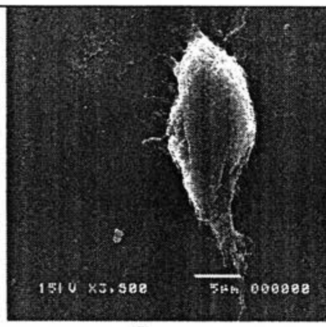
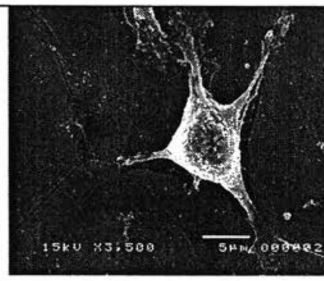
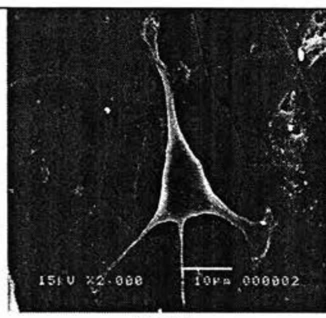
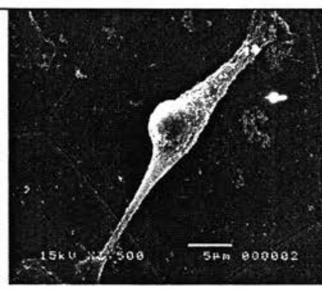
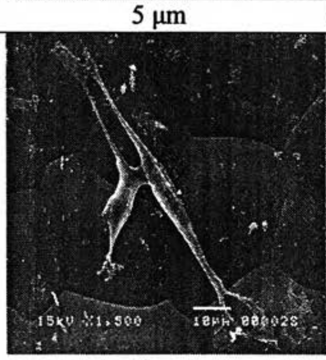
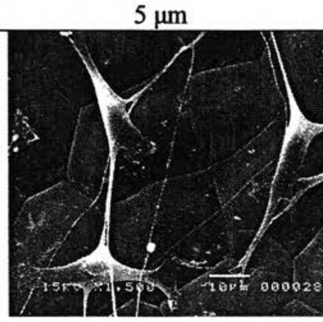
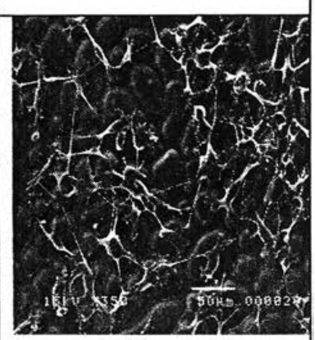
16 h. Scale bar =	 10 µm	 10 µm	 50 µm
1 Day Scale bar =	 10 µm	 10 µm	 50 µm
2 Days Scale bar =	 10 µm	 10 µm	 50 µm
3 Days Scale bar =	 10 µm	 10 µm	 50 µm

Table B2 The SEM images of Schwann cells cultured on the film scaffolds at the different times in culture.

Times in culture	**Film scaffolds**		
	Fig. 1	Fig. 2	Fig. 3
1 h. Scale bar =		 5 μm	 50 μm
2 h. Scale bar =	 5 μm	 5 μm	
4 h. Scale bar =	 5 μm	 5 μm	
8 h. Scale bar =	 10 μm	 10 μm	 50 μm

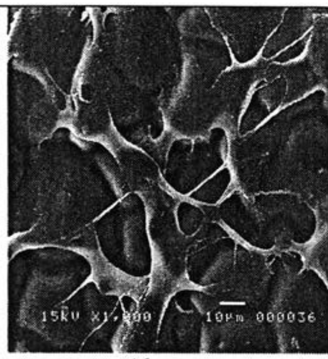
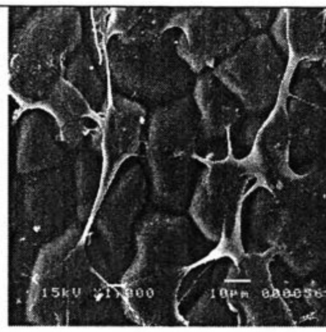
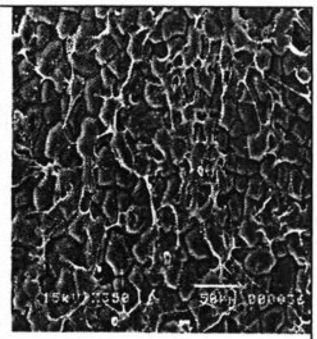
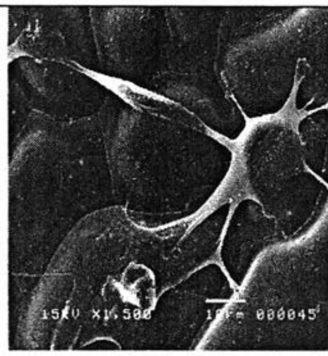
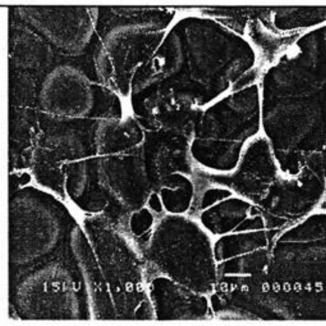
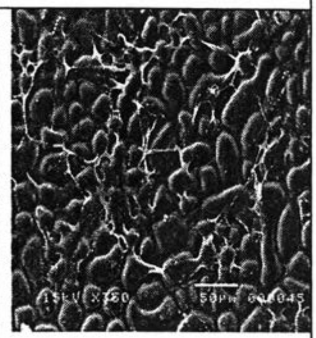
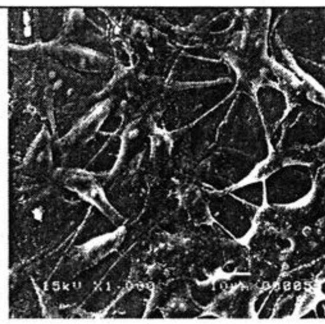
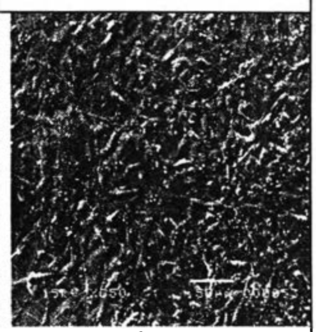
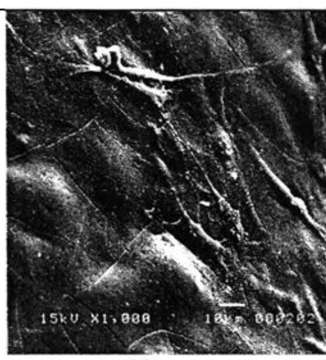
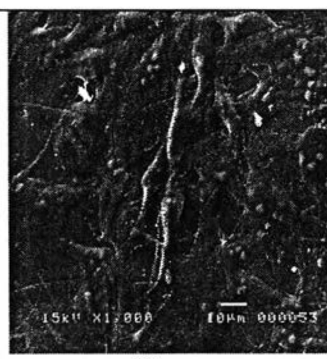
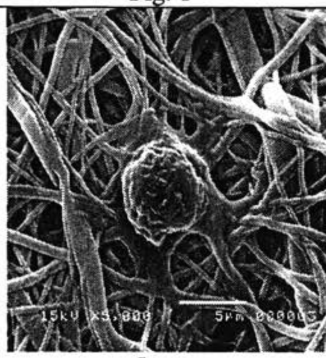
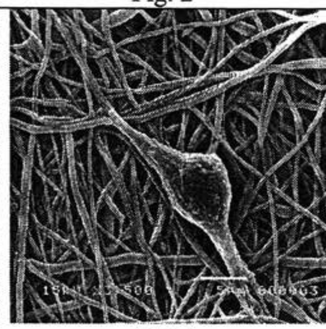
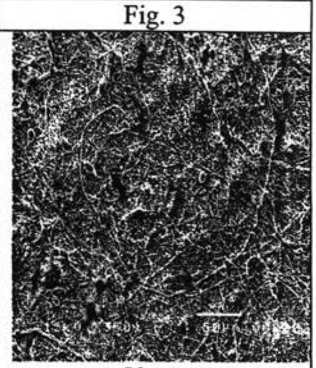
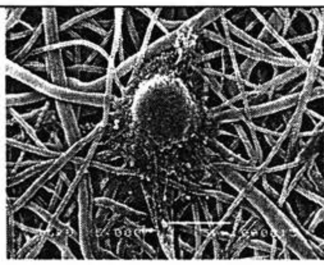
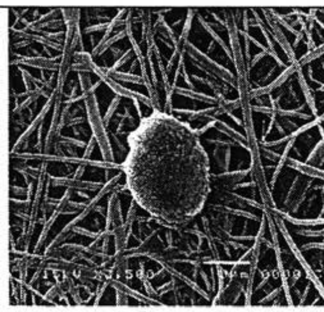
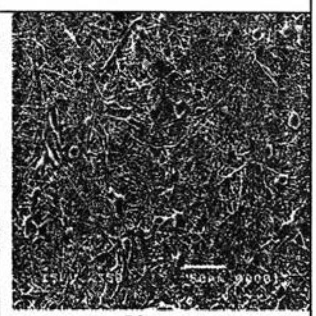
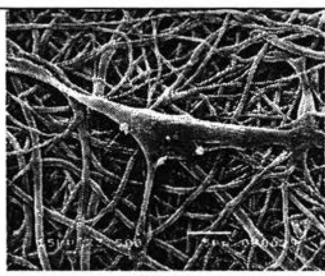
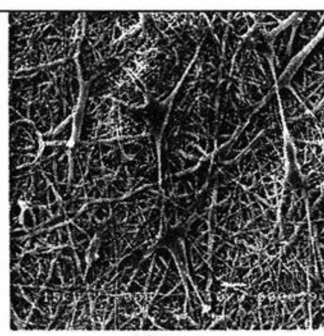
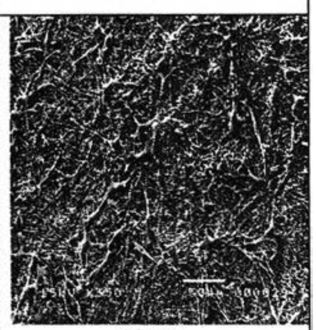
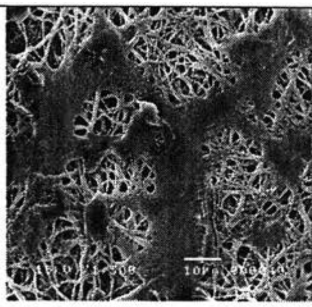
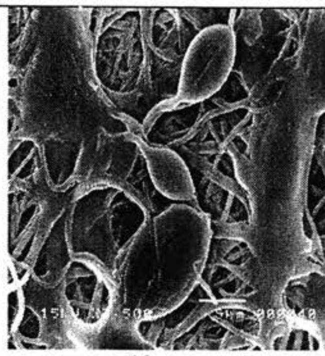
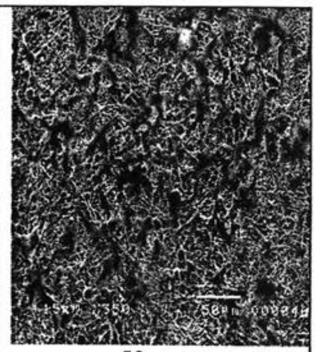
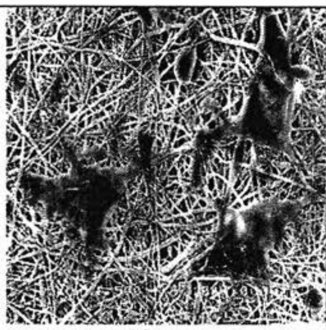
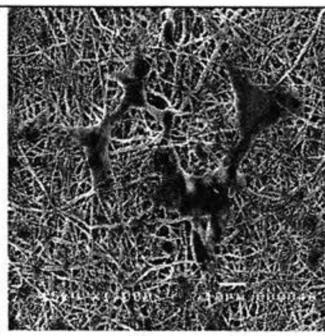
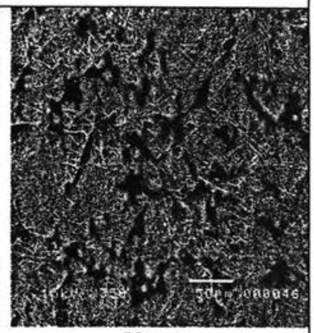
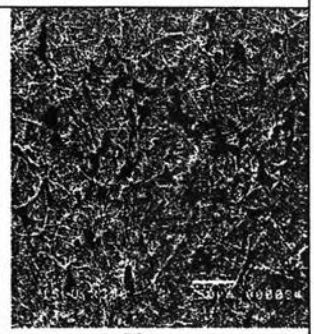
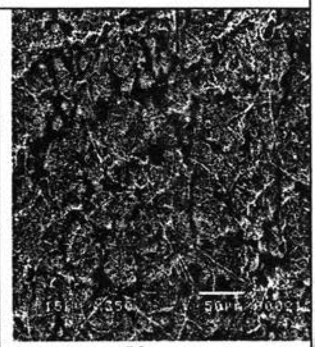
16 h. Scale bar =	 10 µm	 10 µm	 50 µm
1 Day Scale bar =	 10 µm	 10 µm	 50 µm
2 Days Scale bar =		 10 µm	 50 µm
3 Days Scale bar =	 10 µm	 10 µm	

Table B3 The SEM images of Schwann cells cultured on the fibrous mat scaffolds at the different times in culture.

Times in culture	Fibrous mat scaffolds		
	Fig. 1	Fig. 2	Fig. 3
1 h. Scale bar =	 5 µm	 5 µm	 50 µm
2 h. Scale bar =	 5 µm	 5 µm	 50 µm
4 h. Scale bar =	 5 µm		
8 h. Scale bar =	 10 µm	 10 µm	 50 µm

16 h. Scale bar =	 10 μm	 10 μm	 50 μm
1 Day Scale bar =	 10 μm	 10 μm	 50 μm
2 Days Scale bar =	 10 μm	 10 μm	 50 μm
3 Days Scale bar =	 10 μm	 10 μm	 50 μm

VITA

Tatiya Laksana-ngam was born on 19 May 1982 at Roi-ed province. She is a daughter of Mr. Supat Laksana-ngam and Ms. Sunit Laksana-ngam. She has one younger brother named Mr. Gowaras Laksana-ngam. In 2000, she graduated from Princess Chulabhorn's College Mukdaharn 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 and graduated in 2006.