Materials List for:
Measurement of Total Calcium in Neurons by Electron Probe X-ray Microanalysis

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<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Catalog Number</th>
<th>Comments</th>
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<tbody>
<tr>
<td>REAGENTS/MATERIALS</td>
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<tr>
<td>Thermostix plastic coverslips</td>
<td>Thermo Fischer Scientific</td>
<td>72280</td>
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<tr>
<td>Culture inserts</td>
<td>BD Falcon</td>
<td>353090</td>
<td>For 6-well plates</td>
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<tr>
<td>Cryopins</td>
<td>Leica Microsystems</td>
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<td>Wood applicators</td>
<td>EM Sciences</td>
<td>72300</td>
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<tr>
<td>Folding EM grids</td>
<td>Ted Pella</td>
<td>4GC100/100</td>
<td>100 mesh</td>
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<tr>
<td>Indium foil</td>
<td>Alfa Aesar</td>
<td>13982</td>
<td>0.25 mm thick</td>
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<td>EQUIPMENT</td>
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<td>Plunge freezing device</td>
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<td>KF-80</td>
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<td>Slam freezing device</td>
<td>LifeCell</td>
<td>CF-100</td>
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<td>Ultramicrotome</td>
<td>Leica Microsystems</td>
<td>UC6</td>
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<tr>
<td>Cryoattachment for microtome</td>
<td>Leica Microsystems</td>
<td>FC6</td>
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<td>Diamond cryotrimming tool</td>
<td>Diatome</td>
<td>Cryotrim 45</td>
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<td>Diamond cryoknife</td>
<td>Diatome</td>
<td>Cryo 35</td>
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<td>Antistatic device</td>
<td>Diatome</td>
<td>Hauf Static Line</td>
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<td>Cryo electron microscope</td>
<td>Carl Zeiss Microscopy</td>
<td>EM912 Omega</td>
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<td>EM cryo specimen holder</td>
<td>Gatan</td>
<td>CT3500</td>
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<td>Troendle (TRS)</td>
<td>Sharpeye</td>
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<td>Image acquisition software</td>
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<td>ITE suite</td>
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<td>ED x-ray detector</td>
<td>Oxford Instruments</td>
<td>Linksystem Pentafet</td>
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<tr>
<td>Pulse Processor</td>
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<td>PCI backplane card</td>
<td>4pi Systems</td>
<td>Spectral Engine II</td>
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<tr>
<td>Desktop computer</td>
<td>Apple</td>
<td>Any OS9-compatible model</td>
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<tr>
<td>X-ray analysis software</td>
<td>NIST</td>
<td>DTSA, DTSA II</td>
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<tr>
<td>Spreadsheet software</td>
<td>Microsoft</td>
<td>Excel</td>
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</table>

1. The CF100 is no longer sold commercially, although the machine is available at many academic facilities, and complete machines or parts can be found on-line.
3. The SEII is obsolete; the Universal Spectral Engine Is a later, PC-compatible product with comparable functionality. 4pi has ceased manufacturing and sales but still provides technical customer support. Used systems are often found online.
4. The original DTSA is now obsolete. NIST offers in the public domain an updated successor, DTSA II (http://www.nist.gov/mml/mmsd/software.cfm)