Available Assays

The Eicosanoid Core Laboratory is a Vanderbilt University Shared Resource designated for the analysis of oxidation products of arachidonic acid and other polyunsaturated fatty acids. These molecules include isoprostanes, prostaglandins, leukotrienes, epoxyeicosatetraenoic acids (EETs), and hydroxy- and di-hydroxy-eicosatetraenoic acids (20-HETE and DHETs), and their metabolites. The services available in the Core are listed in the Table below. All of the assays performed are validated highly precise, accurate, and sensitive mass spectrometric assays, many of which were developed by Core personnel.

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-hydroxy-eicosatetraenoic acid (20-HETE)</td>
<td>Plasma, Tissues, Cells/Media</td>
</tr>
<tr>
<td>Di-hydroxy-eicosatetraenoic acids (DHETs)</td>
<td>Plasma, Tissues, Cells/Media</td>
</tr>
<tr>
<td>Epoxyeicosatetraenoic acids (EETs)</td>
<td>Plasma, Tissues, Cells/Media</td>
</tr>
<tr>
<td>F2-Isoprostanes</td>
<td>Plasma, Urine, Tissues, Cells/Media, CSF, BAL</td>
</tr>
<tr>
<td>F2-Isoprostane metabolite</td>
<td>Urine</td>
</tr>
<tr>
<td>F3-Isoprostanes (from eicosapentaenoic acid)</td>
<td>Plasma, Urine, Tissues, Cells/Media, CSF, BAL</td>
</tr>
<tr>
<td>F4-Isoprostanes/Neuroprostanes (from eicosapentaenoic acid)</td>
<td>Plasma, Urine, Tissues, Cells/Media, CSF, BAL</td>
</tr>
<tr>
<td>Isofurans</td>
<td>Plasma, Urine, Tissues, Cells/Media, CSF, BAL</td>
</tr>
<tr>
<td>Thromboxane B2</td>
<td>Serum</td>
</tr>
<tr>
<td>PGE2 metabolite</td>
<td>Urine</td>
</tr>
<tr>
<td>PGD2 metabolite</td>
<td>Urine</td>
</tr>
<tr>
<td>PGI2 (prostacyclin) metabolite</td>
<td>Urine</td>
</tr>
<tr>
<td>Thromboxane B2 metabolite</td>
<td>Urine</td>
</tr>
<tr>
<td>Leukotriene B4</td>
<td>Cells/Media</td>
</tr>
<tr>
<td>Leukotriene E4</td>
<td>Urine</td>
</tr>
<tr>
<td>Parent Prostaglandins (F, D, E, J, A, I, and thromboxane B2)</td>
<td>Tissues, Cells/Media, CSF, EBC, BAL</td>
</tr>
</tbody>
</table>