Technology Center 1600

Biotechnology and organic chemistry
## Our technology

<table>
<thead>
<tr>
<th>Work group</th>
<th>Subject matter</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1610</td>
<td>Pharmaceutical and drug delivery systems</td>
<td>3</td>
</tr>
<tr>
<td>1620</td>
<td>Organic chemistry: drugs and other bio-affecting body treating composition</td>
<td>4</td>
</tr>
<tr>
<td>1630</td>
<td>Molecular biology, cell biology, and bioinformatics</td>
<td>5</td>
</tr>
<tr>
<td>1640</td>
<td>Immunology, cytokines, antibodies, receptors, ligands, and recombinant hormones</td>
<td>6</td>
</tr>
<tr>
<td>1650</td>
<td>Protein, enzymes, and microbiology</td>
<td>7</td>
</tr>
<tr>
<td>1660</td>
<td>Transgenic plants and novel cultivars and varieties</td>
<td>8</td>
</tr>
</tbody>
</table>
**1611-1613, 1615-1619—Drug formulations**
Buffers, stabilizers, and other inactive agents

- Transdermal patches
- Cosmetics, shampoos, conditioners, and deodorants
- Tamper-resistant tablets

**1612/1613—Drug formulations**
Oral and dental care, liposome drug-delivery compositions

- Surgical implants (drug-coated stents)
  - Artery with plaque
  - Deflated balloon with stent
  - Inflated balloon with expanded stent
  - Widened artery with stent

- Teeth whitening strips

**1616—Drug formulations**
Herbicides, pesticides, biocides, and animal or insect repellants and attractants

**1618—Drug formulations**
In vivo diagnostic contrast agents for techniques like radioimaging, MRI/NMR imaging, x-ray imaging, ultrasound imaging, and fluorescent imaging

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*All art units in WG 1610 cover drug delivery systems, and each AU additionally encompasses the subject matter as shown.*

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**1622—Organic synthesis**
Methods of making organic compounds from fats, fatty acids, organic compounds containing atoms other than carbon, ureas and their derivatives, ketones, aldehydes, ethers, and alcohols, plus compositions that are produced by these processes

**1623—Carbohydrates**
Compositions and methods of treating comprising carbohydrates, nitrogen containing glycosides and polysaccharides, polysaccharides, and derivatives thereof

**Workgroup 1620**
Organic chemistry: drugs and other bio-affecting and body-treating compositions

**1624-1629—Bio-affecting and body-treating heterocyclic compounds and compositions**
Novel bio-affecting drugs like antibiotics, fungicides, herbicides, pharmaceuticals, toxicology, and other bio-affecting organic compounds, organic compounds comprising atoms other than carbon, and methods of making and using these compositions

Treating HIV
Treating dry eye
Treating COVID-19
Treating Alzheimer’s
1646—Cytokines and Growth Factors/Receptors
Antibodies, recombinant hormones, or agents that bind to proteins involved in growth signaling

1642/1643—Cancer Immunology
Antibodies or peptides binding to proteins involved in cancer and their uses in diagnosis and treatment

1641—Imunoassay and related devices
Detection assays and devices using antibodies as diagnostic agents

1644—Cellular Immunology
Antibodies or peptides binding to proteins on immune cells and their uses in diagnosis and treatment, plus engineered immune cells expressing antibodies

1645—Bacterial/parasitic immunology
Antibodies or agents binding to bacterial proteins and their uses as biologics/diagnosis; and vaccines against bacteria and parasites

1649—Neuroimmunology
Nervous system or neuron related proteins and nucleic acids, neural stem/progenitor cells, and diagnosis and treatment

1648—Viral Immunology
Antibodies or agents binding to viral proteins and their uses in diagnosis and treatment, including vaccines against viruses
**1651/1653/1657—Microbiology, enzymes, & fermentation**
Non-transformed microorganisms and processes of growing and using them, plus non-recombinant enzymes and methods of using them for assays and treatments

**1654/1658—Peptides**
Small proteins and peptides including hormones, anti-inflammatories, antibiotics, antivirals, non-recombinant insulin, enzyme/protease inhibitors and blood factors, as well as the pharmaceutical compositions containing them and methods of using and making them

**1652—Recombinant enzymes**
Recombinant enzymes and DNA encoding them, plus methods of making them and using them for treatments and other applications

**1655—Bioactive plant, microbial, and animal extracts**
Extracts from herbs, fungi, algae, microbes, and animals, plus methods of making and using them as pharmaceuticals or cosmetics

**1656—Recombinant enzymes and protein crystallography**
Recombinant biosynthetic pathway enzymes and recombinant microorganisms that generate them, plus methods of using the enzymes and microorganisms

**Workgroup 1650**
Protein, enzymes, and microbiology

- Treating celiac sprue disease
- Food with gluten
- Recombinant enzyme
- Digestion of gluten in the gut

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Workgroup 1660
Transgenic plants and novel cultivars and varieties

1662/1663—Transgenic plants and cultivars

- Agrobacterium
- Ti plasmid
- Integration sites
- Foreign gene
- Kanamycin resistant gene

1661—Asexually reproducing plant varieties

- Strawberry plant
- Snapdragon
- Potato plant
- Blueberry plant