A 100-watt bulb consumes as much power as the magnet in our NMR Spectrometers.

Since Perkin-Elmer’s entire line of NMR Spectrometers employs permanent magnets, the only power required for the magnet is for thermostatting and supplying the Golay coils.

They need no troublesome cooling water and no noisy water refrigerator.

In fact, the savings in operating costs alone could pay for the cost of the instrument in as little as 7 years.

But economical operation is only one of the many benefits you get with our permanent magnet Spectrometers. Others are: unmatched resolution stability; amazing ease of setup; and high throughput.

If you are planning to add to your current NMR capabilities or just getting into NMR, it will pay you to get more information on the entire Perkin-Elmer line of permanent magnet NMR Spectrometers.

Instrument Division, Perkin-Elmer Corporation, Main Avenue, Norwalk, Conn. 06856.

*Perkin-Elmer patent numbers 3,515,979 and 3,622,869.

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Worthington Collagenase...

In microbiological studies of animal cells, it often is desirable to isolate and separate the cells for further study. The researcher's need is to separate the cells from the connective and cementing materials without damaging the cells themselves.

Many researchers found that a natural mixture of digestive enzymes produced by a non-toxigenic strain of the bacterium *Clostridium histolyticum* provided the separation remarkably well. The enzymes, without the toxin that many of the *Clostridia* produce, effectively digest away the materials connecting the cells into a tissue, but leave the cells themselves virtually untouched.

The enzyme mixture is named after its more unique member, *Collagenase*. Worthington supplies Collagenase in several degrees of purity ranging from crude to highly purified; researchers have generally found that the less purified material is more effective in releasing intact cells from tissues. The effectiveness, however, seemed to differ with different tissues, and it did not always match the quantitative differences noted in our assay labs.

A program was therefore initiated by Worthington aimed at correlating effectiveness of samples on specific tissues with results of our own biochemical assays. We enlisted the support of several dozen prominent researchers; they evaluated more than a hundred samples of regular production and specially prepared lots of Collagenase in their own studies.

Evaluation of these studies has enabled us to categorize our crude Collagenase into four different types which are blended and classified according to the specific tissues for which each is best suited. The four types are available as listed in our current catalog.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CHARACTERISTIC</th>
<th>TISSUE BEST SUITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Normal balance</td>
<td>Fat cells; Adrenal tissue</td>
</tr>
<tr>
<td>II</td>
<td>High Clostridiopeptidase</td>
<td>Liver, Bone, Thyroid</td>
</tr>
<tr>
<td>III</td>
<td>Low Proteases generally</td>
<td>Mammary</td>
</tr>
<tr>
<td>IV</td>
<td>Low Tryptic activity</td>
<td>Pancreatic Islet cells</td>
</tr>
</tbody>
</table>

The increasing use of Collagenase in cell isolation is encouraging. Credit for the program's success is due to the many researchers who cooperated so openly with their time and talent.

Your comments and interest are welcome. Additional information on this application of Collagenase and a copy of our current catalog are available on request.

Worthington Biochemical Corporation | Freehold, New Jersey 07728 U.S.A.

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45 The observatory of the Collegio Romano, where Jesuit astronomer Father Angelo Secchi (1818-1878) made the first spectroscopic survey of the heavens.

46 Museo Copernico ed Astronomico where Polish Astronomer Nicolas Copernicus did much of his early work.

47 Naples. The Zoological Station.

48 University of Padua. The anatomical theater was built in 1594 by Fabrizius of Acquapendente, a pioneer of the comparative method of anatomical research and discoverer of valves in the veins.

Vienna. 49 The Pharmacognostisches Institute, which houses a museum of 10,000 items of scientific interest.

50 A reconstructed apothecary, laboratory and print shop in the Technisches Museum fur Industrie und Gewerbe.

Czechoslovakia. Gregor Mendel did his landmark work in genetics in a 51 monastery in Brno.

Still in Prague. 52 Charles University where you will visit the rooms in which Einstein, Ernst Mach and Philipp Frank taught and worked.

Germany. Munich. 53 The Deutsches Museum. Reconstruction of the laboratories of Lavoisier and Liebig.

46 The Werner von Siemens Institute, where electrical engineering and research are traced from 1850.

Heidelberg. 55 The Deutsches-Apoktheken Museum, an ancient castle packed with apparatus and drugs, vessels and relics.

56 The Deutsches-Roentgen Museum in Remscheid preserves Roentgen's apparatus, including a 1905 X-ray lab.

57 The Deutsches Gesundheitsmuseum in Cologne.

Berlin. 58 Chemistry Institute, where Otto Hahn split the uranium atom in 1938.

East Berlin. 59 The Robert Koch Museum. Koch, co-founder of modern bacteriology, used glass slides to grow cultures until his assistant, Julius Petri, invented the glassware that carries his name.

60 The home and garden of Alexander V. Humboldt.

61 The library of Max Planck.

62 Charité Hospital, where Rudolph Virchow, founder of cellular pathology, first described leukemia.

Cracow, Poland. 63 Collegium Maius for a look at the telescopes of Copernicus.

A jet to Rumania and a drive to Cluj for a visit to 64 an 18th-century apothecary shop.

Greece. 65 The Lyceum, where Aristotle taught from 355 B.C. until just before his death. 66 Plato's Academy.

Istanbul. 67 Pergamon where Galen practiced medicine.

Bombay. 68 The Tata Institute of Fundamental Research, devoted to nuclear research, computer science, molecular biology, radioastronomy, and mathematics.

69 The Bhahba Atomic Research Center is India's national center of research for the peaceful use of atomic energy.

70 The Yoga Institute. Here you can learn Yoga culture, technique and scientific discipline.

Russia. 71 Academy of Sciences in Leningrad. Pavlov's lab.

72 The Anthropological and Ethnographical Museum.

73 The Mendeleyev Research Institute.

Moscow. 74 The National Economic Achievements Exhibition.

Tokyo. 75 The Kitasato Institute, founded by Baron Shibasaburo Kitasato who isolated the agents which cause bubonic plague and dysentery.

You're back on American soil when you visit 76 the Hawaii Volcano Observatory.

To wind up your trip we want to give you the opportunity to see any four labs in the U.S. 77, 78, 79, 80 which hold particular interest for you. We will do our level best to arrange a visit for you to four labs of your choice.

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1. This sweepsakes is only open to those employed in medical, educational, or industrial fields who normally work with labware. Or who supervise or administer a laboratory. Or who purchase or store labware.

2. To enter, complete this official entry blank, or, on a plain 3 x 5-inch piece of paper, hand print your name, address, and field of activity.

3. Enter as often as you wish, but each entry must be mailed separately to: Around the World in 80 Labs, P. O. Box 1730, Blair, Nebraska 68009. Entries must be postmarked by September 30, 1974 and received by October 15, 1974.

4. One winner from each of the three fields of activity—industry, education, and medicine—will be picked from among all entries received in random drawings conducted by the D.L. Blair Corp., an independent judging organization. Decisions of the judges are final. Winners will be notified by mail. Winners will travel in a group departing on a date to be selected by Corning Glass Works. Departure is estimated to be between the months of May and July, 1975 for a trip duration of 30 days. Corning Glass Works reserves the right to modify trip itinerary as a result of conditions prevailing at time of prize award.

5. All prizes are guaranteed to be awarded Names of the prize winners will be furnished to anyone who sends a stamped, self-addressed envelope to Corning Laboratory Sweepstakes, Corning Glass Works, Corning, N.Y. 14830.

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