

# Current Comments

## The 1,000 Most-Cited Contemporary Scientists. Part 3. Details on Their Current Institutional Affiliations

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This essay is the sixth in our series on the 1,000 contemporary authors most cited for articles they published from 1965 to 1978. The study is based on data from journals indexed in *Science Citation Index*<sup>®</sup> (*SCI*<sup>®</sup>). Citations to books were not included. The data were taken from our "all author" files, which treat all authors on every article as if they were listed first in the by-line.

Part 1 of this series described in detail how the authors were identified and presented the entire list of names.<sup>1</sup> Part 2A provided citation and authorship data on 214 scientists in 12 physical and chemical sciences.<sup>2</sup> Parts 2B, 2C, and 2D covered a total of 786 authors in 26 life sciences fields.<sup>3-5</sup> Table 1 lists all the fields covered in each of these four parts of this study.

This part of the series concludes our study with an analysis of the current institutional affiliations of all 1,000 most-cited contemporary scientists. We started by checking ISI's *Current Bibliographic Directory of the Arts & Sciences*<sup>®</sup> to get their addresses. A letter was sent to each of the authors asking them to fill out a questionnaire and provide a list of their publications. Thus, the institutions from which they wrote back to us during our study (1979-1980) were listed as their current affiliations. If we didn't get a response, we tried to contact the authors by telephone to make

sure their addresses were up to date. In the event that an author was retired or deceased, we checked their last publication for the most recent affiliation. Finally, we incorporated any changes in affiliation that were brought to our attention following the publication of preceding parts of this study.

In retrospect, it may have been more interesting to list *all* the institutions which each author was affiliated with over the 14-year period covered in this study, in addition to their current affiliations. This certainly would have been a difficult task, but not an impossible one. Keep in mind that the average author in this study published 121 cited papers.<sup>1</sup> Thus, we would have to check over 120,000 papers in order to trace all the authors' career histories. The resulting information simply may not have been worth the time and expense such a massive effort would require. Of course, we could have asked the authors themselves to provide their institutional affiliations from 1965 to 1978. But we felt this would overburden many of the authors who were kind enough to fill out our questionnaire in the first place.

Table 2 lists the current affiliations of all 1,000 authors in this study. The list is arranged in alphabetical order by country. US institutions are further organized by state. Institutions are ranked by total number of most-cited authors un-

**Table 1:** Scientific fields covered in Parts 2A, 2B, 2C, and 2D of the 1,000 most-cited contemporary authors study.

<p><b>Part 2A</b>  aeronomy  analytical chemistry  astronomy  astrophysics  chemical physics  geophysics  inorganic chemistry  organic chemistry  organometallic chemistry  physical chemistry</p>	<p>physics  theoretical chemistry</p> <p><b>Part 2B</b>  biochemistry  biophysics  cell biology  enzymology  genetics  molecular biology  plant sciences</p>	<p><b>Part 2C</b>  hematology  histology  immunology  microbiology  physiology  virology</p> <p><b>Part 2D</b>  cardiology  endocrinology</p>	<p>gastroenterology  nephrology  neurobiology  neurology  neuropharmacology  nuclear medicine  oncology  pathology  pharmacology  psychiatry  surgery</p>
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der each country and/or state heading. Also shown are the authors affiliated with each institution and the disciplines they were assigned to in this study. Actually, the authors assigned themselves to their discipline by choosing from a "menu" of specialties on the questionnaire they received. If they checked off more than one discipline, we decided which one would be most appropriate after examining their articles, academy memberships, institutional affiliations, and so on.

Of the 252 institutions listed in Table 2, 147 are located in the US and 736 authors are affiliated with them. Thus, the US accounts for 58 percent of the institutions and 74 percent of the scientists in this study. The European countries account for 76 institutions (31 percent) and 206 authors (21 percent).

The UK has 28 institutions and 85 authors. Ten institutions are located in Switzerland, and they account for 13 authors. However, two institutions based in Geneva are actually international research organizations—CERN (European Organization for Nuclear Research), two authors, and World Health Organization, one author. Canada and the Federal Republic of Germany are represented by nine institutions each, with 23 and 21 authors, respectively. Japan accounts for eight institutions,

with 11 authors. Seven French institutions with 26 authors appear on the list. Twelve authors are affiliated with six Australian institutions. Only six institutions from Sweden are shown, but they represent 42 authors—the third largest group in the study. Table 3 shows the number of institutions that are located in the 21 countries represented in this study, including the number of authors.

Just ten of the 147 US institutions account for 46 percent of US authors: the University of California's ten branch campuses (79), National Institutes of Health (79), Harvard University (43), Stanford University (35), the University of Texas' five campuses (28), University of Wisconsin (21), Yale University (15), Massachusetts Institute of Technology (14), Rockefeller University (14), and the Veteran's Administration (VA) hospital system (13). Although we list the VA as being based in Washington, DC, the VA hospitals are actually located in five states—California (3), Louisiana (3), New York (4), Texas (2), and Wisconsin (1).

Three of the UK's 28 institutions account for 53 percent of UK authors: the Universities of London (21), Cambridge (15), and Oxford (9). The Federal Republic of Germany's Max Planck Society for the Advancement of Science alone claims 43 percent of that country's

**Table 3:** Locations of institutions of the 1,000 authors by country, in alphabetical order, and number of authors. A = country. B = number of institutions. C = number of authors.

A	B	C
Argentina	1	1
Australia	6	12
Belgium	2	3
Canada	9	23
Czechoslovakia	1	1
Denmark	3	4
Federal Republic of Germany	9	21
Finland	1	1
France	7	26
Hungary	1	1
Israel	4	10
Italy	3	4
Japan	8	11
The Netherlands	3	3
Norway	1	1
Spain	1	1
Sweden	6	42
Switzerland	10	13
Union of Soviet Socialist Republics	1	1
United Kingdom	28	85
United States	147	736
<b>TOTAL</b>	<b>252</b>	<b>1,000</b>

authors. Similarly, Sweden's Karolinska Institute alone accounts for 45 percent of Swedish authors on the list.

Table 4 shows where the 147 US institutions and 736 authors are located by state. New York accounts for the largest number of institutions (22), but it is tied with Massachusetts for third place in terms of the number of authors (85). Massachusetts and California each have 13 institutions, but California claims the largest number of authors (156). Twelve institutions and 29 authors are based in Pennsylvania. New Jersey follows with ten institutions and 30 authors. Maryland's seven institutions account for the second largest group of authors by state (96), 82 of whom work for the government—National Institutes of Health, Food and Drug Administration, Department of Agriculture, and National Aeronautics and Space Administration.

This institutional analysis is a by-product of the basic study, which was primarily intended to identify the 1,000 most-cited contemporary scientists publishing from 1965 to 1978. But it is interesting to note its similarity to a recent study by J. P. Rushton and S. Meltzer, University of Western Ontario, Canada.<sup>6</sup> They used the 1977 *SCI, Social Sciences Citation Index*<sup>®</sup>, and *Arts & Humanities Citation Index*<sup>™</sup> to rank 169 universities in the US, UK, and Canada by the total number of publica-

**Table 4:** Locations of US institutions of the 736 US authors by state, in alphabetical order, and number of authors. A = state. B = number of institutions. C = number of authors.

A	B	C
Alabama	1	5
Alaska	1	1
Arizona	1	1
California	13	156
Colorado	5	12
Connecticut	2	17
Florida	2	6
Georgia	4	6
Illinois	6	25
Indiana	3	10
Iowa	1	1
Louisiana	1	4
Maryland	7	96
Massachusetts	13	85
Michigan	4	13
Minnesota	2	10
Missouri	3	13
New Jersey	10	30
New Mexico	1	2
New York	22	85
North Carolina	3	11
Ohio	4	6
Oklahoma	2	2
Oregon	1	1
Pennsylvania	12	29
South Carolina	2	3
Tennessee	2	8
Texas	6	37
Utah	2	3
Virginia	1	1
Washington, DC	5	18
Washington	3	17
Wisconsin	2	22
<b>TOTAL</b>	<b>147</b>	<b>736</b>

**Table 2:** Institutional affiliations of the 1,000 most-cited contemporary authors, in alphabetical order by country. US institutions also are arranged by state, in alphabetical order. Institutions are arranged in order of the number of most-cited authors affiliated with them. Authors affiliated with each institution are shown, including the categories to which they were assigned. All affiliations reflect the institution from which the authors wrote to us during our study (1979-1980), unless they have notified us of a subsequent change.

<p><b>Argentina (1)</b>  <b>University of Buenos Aires (1)</b>            De Robertis E D P (Cell Biol.)</p>	<p><b>Canada (cont'd.)</b>  <b>University of Guelph (1)</b>            Clark H C (Organomet. Chem.)  <b>University of Manitoba, Winnipeg (1)</b>            Friesen H G (Endocrinology)</p>	<p><b>Finland (1)</b>  <b>University of Oulu (1)</b>            Kivirikko K I (Biochemistry)</p>	<p><b>Israel (10)</b>  <b>Weizmann Institute of Science, Rehovot (6)</b>            Harari H (Physics)            Inbar M (Cell Biol.)            Katchalski-Katzir E (Biophysics)            Sachs L (Oncology)            Sela M (Immunology)            Mandel P (Cell Biol.)  <b>Hebrew University of Jerusalem (2)</b>            Levine R D (Theoretical Chem.)            Razin S (Microbiol.)  <b>Hadassah University Hospital, Jerusalem (1)</b>            Stein Y (Cell Biol.)  <b>Tel-Aviv University (1)</b>            Jortner J (Physics)</p>
<p><b>Australia (12)</b>  <b>Walter and Eliza Hall Institute, Melbourne (5)</b>            MacKay I R (Immunology)            Metcalf D (Hematology)            Nossal G J V (Immunology)            Miller J F A P (Immunology)            Warner N I (Immunology)  <b>Australian National University, Canberra (2)</b>            Blanden R V (Immunology)            Curtis D R (Pharmacology)  <b>University of Sydney (2)</b>            Basten A (Immunology)            Johnston G A (Pharmacology)  <b>Anglo-Australian Observatory, Epping (1)</b>            Morton D C (Astrophysics)  <b>Monash University, Clayton (1)</b>            Linnane A W (Biochemistry)  <b>University of Adelaide (1)</b>            Bowie J H (Organic Chem.)</p>	<p><b>Czechoslovakia (1)</b>  <b>Czechoslovak Academy of Sciences, Prague (1)</b>            Sorm F (Organic Chem.)  <b>Denmark (4)</b>  <b>University of Copenhagen (2)</b>            Hansen O (Physics)            Saltin B (Physiology)  <b>Bispebjerg Hospital, Copenhagen (1)</b>            Lassen N A (Physiology)  <b>University Hospital, Copenhagen (1)</b>            Svegaard A (Immunology)</p>	<p><b>France (26)</b>  <b>CNRS (7)</b>  <b>Centre de Neurochimie, Strasbourg</b>            Mandel P (Cell Biol.)  <b>Institut de Chimie des Substances Naturelles, Gif-sur-Yvette</b>            Barton D H R (Organic Chem.)  <b>Institut de Recherche en Biologie Moleculaire, Paris</b>            Bernardi G (Molec. Biol.)  <b>Institut de Recherches Scientifiques sur le Cancer, Villejuif</b>            Bernhard W (Biophysics)  <b>Laboratoire d'Annecy-le-Vieux de Physique des Particules</b>            Vannucci F (Physics)  <b>Laboratoire de Biochimie, Gif-sur-Yvette</b>            Lederer E (Biochemistry)  <b>Laboratoire de l'Accelerateur Lineaire, Orsay</b>            Jean-Marie B (Physics)</p>	<p><b>Italy (4)</b>  <b>University of Rome (2)</b>            Antonini E (Biochemistry)            Wyman J (Molec. Biol.)  <b>Mario Negri Institute, Milan (1)</b>            Garattini S (Pharmacology)  <b>University of Bologna (1)</b>            Giacomelli G M (Physics)</p>
<p><b>Belgium (3)</b>  <b>Free University of Brussels (2)</b>            Malaisse W J (Endocrinology)            Malaisse-Lagae F (Endocrinology)</p>	<p><b>Federal Republic of Germany (21)</b>  <b>Max Planck Society for the Advancement of Science, Munich (9)</b>  <b>Max Planck Institut fur Immunbiologie, Freiburg</b>            Druckrey H (Oncology)            Luderitz O (Microbiol.)            Westphal O H (Biochemistry)  <b>Max Planck Institut fur Biophysikalische Chemie, Gottingen</b>            Weber K (Biochemistry)            Osborn M (Cell Biol.)</p>	<p><b>Institut Pasteur, Paris (6)</b>            Avrameas S (Immunology)            Changeux J P (Neurology)            Gros F (Molec. Biol.)</p>	<p><b>Japan (11)</b>  <b>Institute of Microbial Chemistry, Tokyo (2)</b>            Takeuchi T (Microbiol.)            Umezawa H (Microbiol.)</p>

**Belgium (cont'd.)**

**Catholic University of Louvain (1)**  
Heremans J F (Immunology)

**Canada (23)**

**McGill University, Montreal (7)**  
Freedman S O (Immunology)  
Gold P (Oncology)  
Krnjevic K (Physiology)  
Leblond C P (Histology)  
MacKlem P T (Physiology)  
Milic-Emili J (Physiology)  
Murphy B E P (Endocrinology)

**University of Toronto (5)**

Eylar E H (Biochemistry)  
Farber E (Pathology)  
Packham M A (Hematology)  
Polanyi J C (Physical Chem.)  
Seeman P (Neurology)

**Ontario Cancer Institute, Toronto (3)**

McCulloch E A (Hematology)  
Phillips R A (Immunology)  
Till J E (Biophysics)

**McMaster University, Hamilton (2)**

Mustard J F (Pathology)  
Rawls W E (Virology)

**National Research Council, Ottawa (2)**

Ingold K U (Organic Chem.)  
Smith I C P (Biophysics)

**Hospital for Sick Children, Toronto (1)**

Siminovitch L (Genetics)

**University of Alberta (1)**

Henderson J F (Biochemistry)

**FRG (cont'd.)**

**Max Planck Institut fur Biochemie, Munich**  
Thoenen J (Neurology)

**Max Planck Institut fur Biologie, Tubingen**

Klein J (Genetics)

**Max Planck Institut fur Festkorperforschung, Stuttgart**  
Cardona M (Physics)

**Max Planck Institut fur Molekulare Genetik, Berlin**  
Wittman H G (Molec. Biol.)

**German Cancer Research Center, Heidelberg (3)**

Franke W W (Cell Biol.)  
Ivankovic S (Oncology)  
Preussmann R (Oncology)

**Munich University (2)**

Huisgen R (Organic Chem.)  
Klingenberg M E (Biophysics)

**Technical University of Munich (2)**

Fischer E O (Organomet. Chem.)  
Schmidbaur H (Organomet. Chem.)

**Erlangen-Nuremberg University (1)**

Schleyer P V (Organic Chem.)

**Technical University of Berlin (1)**

Bohlmann F (Organic Chem.)

**Tubingen University (1)**

Remmer H (Pharmacology)

**University of Bielefeld (1)**

Muller A (Inorganic Chem.)

**University of Frankfurt (1)**

Greiner W (Physics)

**France (cont'd.)**

Jacob F (Molec. Biol.)  
Monod J L (Molec. Biol.)  
Stanier R Y (Microbiol.)

**University of Paris (6)****VII**

Bernard J A (Hematology)  
Dubois J E (Physical Chem.)  
Seligmann M G (Hematology)

**V**

Bach J F (Immunology)

**VI**

Le Pichon X (Geophysics)

**XI, Orsay**

Baulieu E E (Endocrinology)

**Louis Pasteur University, Strasbourg (3)**

Chambon P H (Molec. Biol.)  
Lehn J (Physical Chem.)  
Osborn J A (Inorganic Chem.)

**College of France, Paris (2)**

Dausset J (Immunology)  
Glowinski J (Neuropharmacol.)

**Institute of Cancer & Immunogenetics,**

**Villejuif (1)**  
Mathe G (Cell Biol.)

**University Claude Bernard, Lyon (1)**

Jouvet M (Physiology)

**Hungary (1)**

**Semmelweis University Medical School, Budapest (1)**  
Palkovits M (Neuropharmacol.)

**Japan (cont'd.)**

**Kyoto University (2)**  
Hayaishi O (Enzymology)  
Nozaki H (Organic Chem.)

**National Cancer Research Institute, Tokyo (2)**

Nishimura S (Molec. Biol.)  
Sugimura T (Oncology)

**Hoshi College of Pharmacy, Tokyo (1)**

Kametani T (Pharmacology)

**Keio University, Tokyo (1)**

Kato R (Pharmacology)

**Osaka University (1)**

Sato R (Biochemistry)

**Sagami Chemical Research Center, Kanagawa (1)**

Morino Y (Physical Chem.)

**Shinrakuen Hospital, Nigatashi (1)**

Aoki T (Immunology)

**The Netherlands (3)**

**State University of Leiden (1)**  
van Rood J J (Immunology)

**State University of Utrecht (1)**

van Deenen L L (Biochemistry)

**University of Amsterdam (1)**

Borst P (Molec. Biol.)

**Norway (1)**

**Oslo University (1)**  
Natvig J B (Immunology)

**Spain (1)**

**Universidad Autonoma, Madrid (1)**  
Vinuela E (Virology)

**Sweden (42)**

**Karolinska Institute, Stockholm (20)**  
Carlson L A (Physiology)  
Caspersson T O (Cell Biol.)  
Diczfalusy E (Endocrinology)  
Fuxe K G (Cell Biol.)  
Hamberg M (Biochemistry)  
Hokfelt T (Neuropharmacol.)  
Holm O G (Hematology)  
Johansson S G O (Immunology)  
Jondal M B (Immunology)  
Jonsson G (Histology)  
Klein E (Immunology)  
Klein G (Immunology)  
Luft R (Endocrinology)  
Olson I O (Neurobiology)  
Orrenius S (Pharmacology)  
Samuelsson B (Biochemistry)  
Sjoqvist F F G (Pharmacology)  
Sjovall J G (Biochemistry)  
Ungerstedt U (Pharmacology)  
Zech L (Genetics)

**University of Lund (8)**

Bjorklund A (Cell Biol.)  
Falck B O F (Histology)  
Hakanson R (Pharmacology)  
Laurell C B (Immunology)  
Nilsson I M (Hematology)  
Owman C S O (Histology)  
Siesjo B K (Neurology)  
Sjogren H O (Oncology)

**Uppsala University (7)**

Anden N E B (Pharmacology)  
Ericsson J L E (Pathology)

**Switzerland (cont'd.)**

**Swiss Institute for Experimental  
Cancer Research, Lausanne (1)**  
Brunner K T (Immunology)

**University of Lausanne (1)**  
Brunner H R (Cardiology)

**World Health Organization, Geneva  
(1)**  
Rowe D S (Immunology)

**Zurich University (1)**  
Schmid H (Physical Chem.)

**Union of Soviet Socialist Republics (1)**

**Shernyakin Institute of Bioorganic  
Chemistry, Moscow (1)**  
Ovchinnikov Y A (Biochemistry)

**United Kingdom (85)**

**University of London (21)**  
**University College**  
Burnstock G (Pharmacology)  
Clark R J H (Inorganic Chem.)  
Feldmann M (Immunology)  
Katz B (Biophysics)  
Miledi R (Biophysics)  
Raff M C (Cell Biol.)

**Royal Postgraduate Medical  
School**

Bloom S R (Endocrinology)  
Datta N (Molec. Biol.)  
Dollery C T (Pharmacology)  
Pearse A G F (Endocrinology)  
Polak J M (Pathology)

**Imperial College of Science and  
Technology**

Blow D M (Biophysics)  
Hartley B S (Molec. Biol.)  
Wilkinson G (Organomet. Chem.)

**UK (cont'd.)**

**Strangeways Research Laboratory**  
Kodicek E H (Biochemistry)

**University of Oxford (9)**  
Brownlee G G (Molec. Biol.)  
Clegg J B (Hematology)  
Doll R (Oncology)  
Harris H (Cell Biol.)  
Krebs H A (Biochemistry)  
Phillips D C (Molec. Biol.)  
Powell T P S (Neurology)  
Weatherall D J (Hematology)  
Williams R J (Inorganic Chem.)

**Medical Research Council (5)**  
**Blood Pressure Unit, Glasgow**  
Brown J J (Physiology)  
Lever A F (Physiology)  
Robertson J I S (Cardiology)

**National Institute for Medical  
Research, London**  
Askonas B A (Immunology)  
Tata J R (Biochemistry)

**Institute of Cancer Research,  
London (3)**

Alexander P (Cell Biol.)  
Grover P L (Oncology)  
Sims P (Molec. Biol.)

**King's College Hospital, London (3)**  
Clifford P (Oncology)  
Kakkar V V (Cardiology)  
Williams R (Gastroenterol.)

**Royal Free Hospital, London (3)**  
Chapman D (Biophysics)  
Hoffbrand A V (Hematology)  
Sherlock S (Gastroenterol.)

**UK (cont'd.)**

**Macaulay Institute for Soil Research,  
Aberdeen (1)**  
West T S (Analyt. Chem.)

**National Institute for Research in  
Dairying, Shinfield (1)**  
Andrews P (Biochemistry)

**Queen Charlotte's Maternity  
Hospital,  
London (1)**  
Sandler M (Pharmacology)

**Royal College of Surgeons of  
England,  
London (1)**  
Turk J L (Pathology)

**Science Research Council,  
Rutherford Laboratory, Didcot (1)**  
Phillips R J (Physics)

**University of Leeds (1)**  
Shaw B L (Inorganic Chem.)

**University of Leicester (1)**  
Symons M C R (Inorganic Chem.)

**University of Liverpool (1)**  
Goodwin T W (Biochemistry)

**University of Manchester (1)**  
Haszeldine R N (Organomet. Chem.)

**University of Nottingham (1)**  
Baldwin R W (Oncology)

**Welsh National School of Medicine,  
Cardiff (1)**  
Hall R (Endocrinology)

**Sweden (cont'd.)**

Kurland C G (Molec. Biol.)  
 Philipson L (Microbiol.)  
 Porath J O (Biochemistry)  
 Wide L E (Endocrinology)  
 Wigzell H L R (Immunology)

**Stockholm University (3)**

Ernster L (Biochemistry)  
 Moller G (Immunology)  
 Perlmann P (Immunology)

**Gothenburg University (3)**

Carlsson A (Neuropharmacol.)  
 Corrodi H (Pharmacology)  
 Dahlstrom A (Histology)

**Pharmacia Diagnostics, Uppsala (1)**

Axen R (Biochemistry)

**Switzerland (13)**

**CERN, Geneva (2)**  
 Veneziano G (Physics)  
 Zumino B (Physics)

**University of Basel (2)**

Burger M M (Cell Biol.)  
 Heilbronner E (Organic Chem.)

**University of Geneva (2)**

Orci L (Histology)  
 Renold A E (Endocrinology)

**Bern University (1)**

Weibel E R (Physiology)

**Kanton Hospital, Basel (1)**

Pletscher A (Neuropharmacol.)

**Ludwig Institute for Cancer Research,**

**Lausanne (1)**  
 Cerottini J C (Immunology)

**UK (cont'd.)****St. Bartholomew's Hospital Medical College**

Besser G M (Endocrinology)  
 Landon J (Pathology)

**St. Mary's Hospital Medical School**

Porter K A (Pathology)  
 Williams R T (Pharmacology)

**Chelsea College**

Beckett A H (Pharmacology)

**Middlesex Hospital Medical School**

Roitt I M (Immunology)

**Westminster Medical School**

Hobbs J R (Pathology)

**University of Cambridge (15)****Laboratory of Molecular Biology**

Barrell B G (Molec. Biol.)  
 Brenner S (Molec. Biol.)  
 Klug A (Molec. Biol.)  
 Milstein C (Immunology)  
 Perutz M F (Molec. Biol.)  
 Sanger F (Molec. Biol.)

**Department of Chemistry**

Battersby A R (Organic Chem.)  
 Johnson B F G (Organic Chem.)  
 Lewis J (Inorganic Chem.)  
 Williams D H (Organic Chem.)

**Department of Biochemistry**

Lehmann H (Molec. Biol.)  
 Northcote D H (Cell Biol.)

**Cavendish Laboratory**

Mott N F (Physics)

**Neurochemical Pharmacology Unit**

Iversen L L (Pharmacology)

**UK (cont'd.)****University of Sussex, Brighton (3)**

Chatt J (Inorganic Chem.)  
 Lappert M F (Organomet. Chem.)  
 Mason R (Inorganic Chem.)

**University of Bristol (2)**

Green M (Inorganic Chem.)  
 Stone F G A (Organomet. Chem.)

**University of Edinburgh (2)**

Cowley R A (Physics)  
 Loening U E (Molec. Biol.)

**Wellcome Research Laboratories,****Kent (2)**

Moncada S (Pharmacology)  
 Vane J R (Pharmacology)

**Agricultural Research Council, Cambridge (1)**

Dawson R M C (Biochemistry)

**Beatson Institute for Cancer Research,****Glasgow (1)**

Paul J (Molec. Biol.)

**Crossley Neurological Research Centre,****Newcastle upon Tyne (1)**

Field E J (Neurology)

**Glynn Research Laboratories, Cornwall (1)**

Mitchell P D (Biochemistry)

**Imperial Cancer Research Fund, London (1)**

Greaves M F (Immunology)

**London Hospital (1)**

Holborow E J (Immunology)

**United States (736)****Alabama (5)****University of Alabama, Birmingham (5)**

Cooper M D (Immunology)  
 Dustan H P (Cardiology)  
 James T N (Cardiology)  
 Miller E J (Biochemistry)  
 Urry D W (Biophysics)

**Alaska (1)****University of Alaska, Fairbanks (1)**

Akasofu S I (Aeronomy)

**Arizona (1)****University of Arizona, Tucson (1)**

Russell D H (Pharmacology)

**California (156)****University of California (79)****Berkeley**

Abrams G S (Physics)  
 Ames B N (Oncology)  
 Casida J E (Biochemistry)  
 Chinowsky W (Physics)  
 Clark A J (Molec. Biol.)  
 Cohen M L (Physics)  
 Duesberg P H (Virology)  
 Goldhaber G (Physics)  
 Kadyk J A (Physics)  
 Koshland D E (Biochemistry)  
 Miller W H (Physics)  
 Moore C B (Physics)  
 Muettterties E L (Inorganic Chem.)  
 Packer L (Biophysics)  
 Rubin H (Cell Biol.)  
 Schaefer H F (Theoretical Chem.)  
 Shirley D A (Physical Chem.)  
 Stephens F S (Theoretical Chem.)  
 Trilling G H (Physics)

**U. of Cal. (cont'd.)****San Francisco**

Arnaud C D (Endocrinology)  
 Bishop J M (Virology)  
 Cleaver J F (Genetics)  
 Forsham P H (Endocrinology)  
 Goodman H M (Molec. Biol.)  
 Grodsky G M (Endocrinology)  
 Grumbach M M (Endocrinology)  
 Kaplan S L (Endocrinology)  
 Li C H (Biochemistry)  
 McCarthy B J (Microbiol.)  
 Papahadjopoulos D P (Molec. Biol.)  
 Parmley W W (Cardiology)  
 Rector F C (Physiology)  
 Rudolph A M (Physiology)  
 Rutter W J (Molec. Biol.)  
 Stoeckenius W (Biophysics)  
 Tomkins G M (Biochemistry)

**San Diego**

Butler W L (Biophysics)  
 Covell J W (Physiology)  
 Dutton R W (Immunology)  
 Helinski D R (Genetics)  
 Hofmann A F (Gastroenterol.)  
 Kaplan N O (Enzymology)  
 Kearns D R (Biophysics)  
 O'Brien J S (Genetics)  
 Ross J (Cardiology)  
 Schrauzer G N (Inorganic Chem.)  
 Seegmiller J E (Immunology)  
 Sell S (Immunology)  
 Singer S J (Cell Biol.)  
 Steinberg D (Biochemistry)  
 Yen S S C (Endocrinology)

**Los Angeles**

Atkinson D E (Biochemistry)  
 Chopra I J (Endocrinology)  
 Cline M J (Hematology)

**Stanford (cont'd.)**

Bulos F (Physics)  
 Drell S D (Physics)  
 Feldman G J (Physics)  
 Fryberger D (Physics)  
 Hanson G (Physics)  
 Larsen R R (Physics)  
 Luth V (Physics)  
 Lynch H L (Physics)  
 Paterson J M (Physics)  
 Perl M L (Physics)  
 Richter B (Physics)

**School of Medicine**

Bensch K G (Pathology)  
 Berg P (Molec. Biol.)  
 Cohen S N (Molec. Biol.)  
 Goldstein A (Pharmacology)  
 Harrison D C (Cardiology)  
 Herzenberg L A (Immunology)  
 Kaplan H S (Oncology)  
 Kornberg A (Molec. Biol.)  
 McDevitt H O (Immunology)  
 Melmon K L (Cell Biol.)  
 Merigan T C (Virology)  
 Remington J S (Microbiol.)  
 Rosenberg S A (Oncology)

**Department of Chemistry**

Collman J P (Inorganic Chem.)  
 Djerassi C (Organic Chem.)  
 Flory P J (Physical Chem.)  
 McConnell H M (Biophysics)  
 Taube H (Inorganic Chem.)

**Department of Biological Sciences**

Schimke R T (Molec. Biol.)  
 Wessels N K (Cell Biol.)  
 Yanofsky C (Molec. Biol.)

**Department of Electrical Engineering**

Spicer W E (Physics)

**University of Southern California, Los Angeles (7)**

Benson S W (Physical Chem.)  
 Engel W K (Neurology)  
 Heidelberger C (Oncology)  
 Massry S G (Physiology)  
 Olah G A (Organic Chem.)  
 Segal G A (Theoretical Chem.)  
 Vogt P K (Virology)

**City of Hope Research Institute, Duarte (2)**

Comings D E (Cell Biol.)  
 Ohno S (Genetics)

**La Jolla Cancer Research Foundation (2)**

Fishman W H (Oncology)  
 Ruoslahti E I (Oncology)

**Cedars Sinai Medical Center, Los Angeles (1)**

Swan H J C (Physiology)

**Helicon Foundation, San Diego (1)**

Thomas C A (Genetics)

**Hewlett Packard, Palo Alto (1)**

Morehouse C C (Physics)

**Pomona College, Claremont (1)**

Hansch C (Organic Chem.)

**Syntex Research, Palo Alto (1)**

Allison A C (Immunology)

**Colorado (12)****University of Colorado (5)**

Claman H N (Immunology)  
 Porter K R (Molec. Biol.)  
 Schalch D S (Endocrinology)  
 Starzl T E (Immunology)  
 Tan E M (Immunology)

**University of Connecticut, Farmington (2)**

Raisz L G (Endocrinology)  
 Ward P A (Pathology)

**Florida (6)****University of Florida, Gainesville (4)**

Hayflick L (Cell Biol.)  
 Katritzky A R (Organic Chem.)  
 McGuigan J E (Gastroenterol.)  
 Winefordner J D (Analyt. Chem.)

**University of Miami (2)**

Parks W P (Immunology)  
 Pressman B C (Pharmacology)

**Georgia (6)****Emory University, Atlanta (2)**

Kuo J F (Pharmacology)  
 Nahmias A J (Virology)

**University of Georgia, Athens (2)**

Allinger N L (Organic Chem.)  
 King R B (Organomet. Chem.)

**Georgia Institute of Technology, Atlanta (1)**

House H O (Organic Chem.)

**Medical College of Georgia, Augusta (1)**

Huisman T H J (Biochemistry)

**Illinois (25)****University of Illinois (11)****Urbana-Champaign**

Drago R S (Inorganic Chem.)  
 Flygare W H (Chem. Phys.)  
 Hageman R H (Plant Sciences)  
 Iben I (Astrophysics)  
 Leonard N J (Biochemistry)  
 Sah C T (Physics)



**UCLA (cont'd.)**

Cram D J (Organic Chem.)  
 Diamond J M (Physiology)  
 Fahey J L (Immunology)  
 Hawthorne M F (Inorganic Chem.)  
 Kleeman C R (Physiology)  
 Mickey M R (Immunology)  
 Morton D L (Oncology)  
 Sawyer C H (Endocrinology)  
 Smith E L (Biochemistry)  
 Terasaki P I (Immunology)  
 Winstein S (Physical Chem.)

**Davis**

Bradbury E M (Cell Biol.)  
 Mason D T (Cardiology)  
 Spurr A R (Plant Sciences)  
 Tappel A L (Biochemistry)  
 Walsh D A (Biochemistry)

**Los Alamos, New Mexico**

Bame S J (Astrophysics)  
 Cromer D T (Physics)  
 Mann J B (Physics)

**Santa Barbara**

Baker B R (Organic Chem.)  
 Bruice T C (Organic Chem.)  
 Pearson R G (Inorganic Chem.)

**Irvine**

Hehre W J (Theoretical Chem.)

**Riverside**

Norman A W (Biochemistry)

**Torrance**

Fisher D A (Endocrinology)

**Stanford University, Palo Alto (35)****Stanford Linear Accelerator Center**

Boyerski A M (Physics)  
 Breidenbach M (Physics)

**California Institute of Technology, Pasadena (12)****Division of Chemistry and Chemical Engineering**

Davidson N R (Molec. Biol.)  
 Gray H B (Inorganic Chem.)  
 Marcus R A (Physical Chem.)  
 Roberts J D (Organic Chem.)  
 Vinograd J (Molec. Biol.)

**Division of Biology**

Attardi G (Molec. Biol.)  
 Bonner J F (Genetics)  
 Davidson E H (Molec. Biol.)  
 Sinsheimer R L (Molec. Biol.)

**Hale Observatory**

Oke J B (Astronomy)  
 Sandage A (Astronomy)

**Kerckhoff Marine Laboratory, Corona-Del-Mar**

Britten R J (Molec. Biol.)

**Salk Institute, La Jolla (7)**

Bloom F E (Neuropharmacol.)  
 Cohn M (Immunology)  
 Cowan W M (Neurology)  
 Dulbecco R (Oncology)  
 Guillemain R (Endocrinology)  
 Rivier J (Endocrinology)  
 Vale W W (Endocrinology)

**Scripps Clinic, La Jolla (7)**

Beutler E (Hematology)  
 Cochrane C G (Immunology)  
 Dixon F J (Immunology)  
 Katz D H (Immunology)  
 Muller-Eberhard H J (Immunology)  
 Reisfeld R A (Immunology)  
 Weigle W O (Immunology)

**National Oceanic & Atmospheric Administration, Boulder (3)**

Fehsenfeld F C (Geophysics)  
 Ferguson E E (Aeronomy)  
 Schmeltekopf A L (Physics)

**Colorado State University, Ft. Collins (2)**

Niswender G D (Endocrinology)  
 Venable J H (Cell Biol.)

**Denver General Hospital (1)**

Moore G E (Oncology)

**National Jewish Hospital, Denver (1)**

Grey H M (Pathology)

**Connecticut (17)****Yale University, New Haven (15)****School of Medicine**

Aghajanian G K (Neuropharmacol.)  
 Curran P F (Biophysics)  
 Farquhar M G (Cell Biol.)  
 Felig P (Endocrinology)  
 Gershon R K (Immunology)  
 Greengard P (Cell Biol.)  
 Marchesi V T (Pathology)  
 Palade G E (Cell Biol.)  
 Rasmussen H (Cell Biol.)  
 Roth R H (Pharmacology)  
 Shulman R G (Chem. Phys.)  
 Waksman B H (Immunology)

**Department of Biology**

Gall J G (Molec. Biol.)  
 Ruddle F H (Genetics)

**Department of Chemistry**

Wiberg K B (Organic Chem.)

**U. of Ill. (cont'd.)****Chicago**

Dray S (Immunology)  
 Lands W E M (Biochemistry)  
 Rosen K M (Cardiology)  
 Spellacy W N (Endocrinology)  
 Walter R (Physiology)

**University of Chicago (7)**

Halpern J (Inorganic Chem.)  
 Rabinowitz M (Molec. Biol.)  
 Rice S A (Physical Chem.)  
 Roizman B (Virology)  
 Steck T L (Biochemistry)  
 Steiner D F (Endocrinology)  
 Taylor E W (Biophysics)

**Northwestern University, Evanston (3)**

Bender M (Organic Chem.)  
 Ibers J A (Inorganic Chem.)  
 Waber J T (Physics)

**Fermi National Accelerator Laboratory, Batavia (2)**

Bjorken J D (Physics)  
 Lee B W (Physics)

**Illinois Mental Health Institutes, Chicago (1)**

Davis J M (Psychiatry)

**Rush-Presbyterian-St. Luke's Medical Center, Chicago (1)**

Gewurz H (Immunology)

**Indiana (10)****Indiana University (5)**

Allerhand A (Biophysics)  
 Baehner R L (Hematology)  
 Feigenbaum H (Cardiology)

**Indiana U. (cont'd.)**

Kochi J K (*Organomet. Chem.*)  
Mahler H R (*Cell Biol.*)

**Purdue University, Lafayette (4)**

Altman J (*Neurology*)  
Brown H C (*Organic Chem.*)  
Cooks R G (*Analyt. Chem.*)  
Morre D J (*Plant Sciences*)

**University of Notre Dame (1)**

Neta P (*Organic Chem.*)

**Iowa (1)**

**University of Iowa, Iowa City (1)**  
Chalkley R (*Molec. Biol.*)

**Louisiana (4)****Tulane University, New Orleans (4)**

Arimura A (*Endocrinology*)  
Bowers C Y (*Endocrinology*)  
Burch G E (*Cardiology*)  
Coy D H (*Endocrinology*)

**Maryland (96)****National Institutes of Health (NIH), Bethesda (79)****National Cancer Institute (NCI)**

Aaronson S A (*Oncology*)  
Borsos T (*Immunology*)  
De Vita V T (*Oncology*)  
Gallo R C (*Cell Biol.*)  
Gelboin H V (*Biochemistry*)  
Gilden R V (*Immunology*)  
Herberman R B (*Oncology*)  
Huebner R J (*Oncology*)  
Johnson G S (*Biochemistry*)  
Marchalonis J J (*Immunology*)  
Pastan I H (*Biochemistry*)  
Potter M (*Oncology*)  
Rapp H J (*Immunology*)  
Scolnick E M (*Virology*)

**National Institute of Allergy & Infectious Diseases (NIAID)**

Asofsky R M (*Immunology*)  
Chanock R M (*Virology*)  
Frank M M (*Immunology*)  
Green I (*Immunology*)  
Hartley J W (*Virology*)  
Paul W E (*Immunology*)  
Purcell R H (*Virology*)  
Rowe W P (*Virology*)  
Shevach E M (*Immunology*)  
Wolff S M (*Immunology*)

**National Institute of Mental Health (NIMH)**

Axelrod J (*Pharmacology*)  
Bunney W E (*Psychiatry*)  
Costa E (*Neuropharmacol.*)  
Goodwin F K (*Psychiatry*)  
Kaufman S (*Enzymology*)  
Kopin I J (*Pharmacology*)  
Murphy D L (*Psychiatry*)  
Neff N H (*Pharmacology*)  
Neville D M (*Molec. Biol.*)

**National Institute of Child Health & Human Development (NICHD)**

Catt K J (*Endocrinology*)  
Chrambach A C (*Biochemistry*)  
Leder P (*Molec. Biol.*)  
Maizel J V (*Molec. Biol.*)  
Nebert D W (*Genetics*)

**National Institute of Dental Research (NIDR)**

Martin G R (*Pharmacology*)  
Mergenhagen S E (*Immunology*)  
Oppenheim J J (*Immunology*)  
Piez K A (*Biochemistry*)

**National Aeronautics and Space Administration,**

**Greenbelt (1)**  
Ness N F (*Physics*)

**University of Maryland, Baltimore (1)**

Trump B F (*Pathology*)

**US Department of Agriculture, Beltsville (1)**

Beroza M (*Analyt. Chem.*)

**Massachusetts (85)****Harvard University, Cambridge (43)****Medical School, Boston**

Austen K F (*Immunology*)  
Benacerraf B (*Immunology*)  
Braunwald E (*Cardiology*)  
Cantor H (*Immunology*)  
David J R (*Immunology*)  
Fawcett D W (*Histology*)  
Gross J (*Biochemistry*)  
Hubel D H (*Physiology*)  
Ingbar S H (*Endocrinology*)  
Karnovsky M J (*Cell Biol.*)  
Merrill J P (*Immunology*)  
Richardson C C (*Molec. Biol.*)  
Ryan K J (*Endocrinology*)  
Schildkraut J J (*Psychiatry*)  
Schur P H (*Immunology*)  
Smith T W (*Cardiology*)  
Soeldner J S (*Endocrinology*)  
Spiro R G (*Biochemistry*)  
Unanue E R (*Immunology*)  
Vallee B L (*Biochemistry*)  
Weinstein L (*Microbiol.*)  
Wiesel T N (*Physiology*)  
Yunis E J (*Immunology*)

**MIT (cont'd.)**

Lodish H F (*Cell Biol.*)  
Penman S (*Molec. Biol.*)  
Rich A (*Molec. Biol.*)

**Department of Chemistry**

Seyferth D (*Organomet. Chem.*)  
Whitesides G M (*Organic Chem.*)

**Department of Nutrition and Food Science**

Munro H N (*Biochemistry*)  
Wurtman R J (*Neuropharmacol.*)

**Department of Physics**

Jackiw R (*Physics*)  
Whitaker J S (*Physics*)

**Arteriosclerosis Center**

Lees R S (*Cardiology*)

**Center for Cancer Research**

Sharp P A (*Molec. Biol.*)

**Massachusetts General Hospital, Boston (5)**

Austen W G (*Physiology*)  
Bloch K J (*Immunology*)  
Haber E (*Immunology*)  
Isselbacher K J (*Gastroenterol.*)  
Potts J T (*Endocrinology*)

**Sidney Farber Cancer Center, Boston (5)**

Canellos G P (*Oncology*)  
Frei E (*Oncology*)  
Nathan D G (*Hematology*)  
Pardee A B (*Cell Biol.*)  
Strominger J L (*Virology*)

**Tufts University, Boston (5)**

Brawerman G (*Molec. Biol.*)  
Gorbach S L (*Microbiol.*)  
Levy R I (*Cardiology*)

**NCI (cont'd.)**

Stephenson J R (Virology)  
 Strober W (Immunology)  
 Terry W D (Immunology)  
 Todaro G J (Oncology)  
 Waldmann T A (Immunology)  
 Young R C (Oncology)  
 Zbar B (Oncology)

**National Institute of Arthritis, Diabetes & Digestive & Kidney Diseases (NIADDDK)**

Anfinsen C B (Biochemistry)  
 Aurbach G D (Endocrinology)  
 Daly J W (Pharmacology)  
 Edelhoeh H (Biochemistry)  
 Felsenfeld G (Molec. Biol.)  
 Friedman R M (Virology)  
 Gorden P (Endocrinology)  
 Jerina D M (Organic Chem.)  
 Rodbell M (Endocrinology)  
 Roth J (Endocrinology)  
 Shulman N R (Hematology)  
 Steinberg A D (Immunology)  
 Witkop B (Organic Chem.)  
 Wolff J (Endocrinology)  
 Yagi H (Organic Chem.)

**National Heart, Lung & Blood Institute (NHLBI)**

Epstein S E (Cardiology)  
 Gillette J R (Pharmacology)  
 Korn E D (Cell Biol.)  
 Krishna G (Pharmacology)  
 Morrow A G (Cardiology)  
 Nirenberg M W (Genetics)  
 Orloff J (Physiology)  
 Roberts W C (Cardiology)  
 Stadtman E R (Biochemistry)  
 Vaughan M (Biochemistry)

**National Institute of Neurological & Communicative Disorders & Stroke (NINCDS)**

Brady R O (Neurology)  
 Reese T S (Cell Biol.)  
 Sever J L (Microbiol.)

**National Institute of Environmental Health Sciences (NIEHS)**

Fouts J R (Pharmacology)

**NIH (unspecified)**

Lipsett M B (Endocrinology)

**Johns Hopkins University, Baltimore (12)****School of Medicine**

Ishizaka K (Immunology)  
 Ishizaka T (Immunology)  
 Kuhar M J (Neuropharmacol.)  
 Lehninger A (Biochemistry)  
 Lichtenstein L M (Immunology)  
 McKusick V A (Genetics)  
 Migeon C J (Endocrinology)  
 Nathans D (Microbiol.)  
 Snyder S H (Pharmacology)  
 Wagner H N (Nuclear Med.)

**Department of Biology**

Roseman S (Biochemistry)

**School of Hygiene and Public Health**

Tso P O P (Biophysics)

**Carnegie Institution, Baltimore (1)**

Brown D D (Molec. Biol.)

**Food and Drug Administration, Bethesda (1)**

Robbins J B (Microbiol.)

**Harvard U. (cont'd.)****Department of Chemistry**

Corey E J (Organic Chem.)  
 Doty P M (Molec. Biol.)  
 Gordon R G (Physical Chem.)  
 Holm R H (Inorganic Chem.)  
 Karplus M (Physical Chem.)  
 Lipscomb W N (Physical Chem.)  
 Woodward R B (Organic Chem.)

**Department of Physics**

Glashow S L (Physics)  
 Rubbia C (Physics)  
 Schwitters R F (Physics)  
 Weinberg S (Physics)

**Center for Astrophysics**

Cameron A G W (Astrophysics)  
 Dalgarno A (Astrophysics)  
 Giacconi R (Astronomy)

**Biology Laboratories**

Branton D (Cell Biol.)  
 Dowling J E (Physiology)

**School of Public Health, Boston**

Lown B (Cardiology)  
 Tashjian A H (Endocrinology)

**Center for Earth & Planetary Sciences**

McElroy M B (Inorganic Chem.)

**Division of Applied Sciences**

Bloembergen N (Physics)

**Massachusetts Institute of Technology, Cambridge (14)****Department of Biology**

Baltimore D (Virology)  
 Green H (Cell Biol.)  
 Khorana H G (Organic Chem.)

**Tufts (cont'd.)**

Schwartz R S (Immunology)  
 Wallach D F H (Oncology)

**Boston University (4)**

Black P H (Virology)  
 Cohen A S (Pathology)  
 Kannel W B (Cardiology)  
 Small D M (Biophysics)

**Brandeis University, Waltham (3)**

Fasman G D (Biochemistry)  
 Jencks W P (Organic Chem.)  
 Levine L (Immunology)

**Boston City Hospital (1)**

Finland M (Microbiol.)

**Center for Blood Research, Boston (1)**

Alper C A (Immunology)

**Children's Hospital Medical Center, Boston (1)**

Rosen F S (Immunology)

**Forsyth Dental Center, Boston (1)**

Gibbons R J (Microbiol.)

**Howard Hughes Medical Institute, Boston (1)**

Cahill G F (Physiology)

**Worcester Foundation for Experimental Biology, Shrewsbury (1)**

Fairbanks G (Cell Biol.)

**Michigan (13)****University of Michigan, Ann Arbor (7)**

Conn J W (Endocrinology)  
 Coon M J (Enzymology)  
 Goldstein I J (Biochemistry)

**U. Mich. (cont'd.)**

Kelley W N (Genetics)  
 Massey V (Enzymology)  
 Midgley A R (Endocrinology)  
 Pitt B (Cardiology)

**Michigan State University, East Lansing (3)**

Meites J (Endocrinology)  
 Sweeley C C (Organic Chem.)  
 Tolbert N E (Plant Sciences)

**Dow Chemical, Midland (2)**

Koch-Weser J (Pharmacology),  
 Strasbourg, France  
 Sjoerdsma A (Pharmacology),  
 Cincinnati, Ohio

**Wayne State University, Detroit (1)**  
Izawa S (Plant Sciences)**Minnesota (10)**

**University of Minnesota,  
 Minneapolis (8)**  
 Bach F H (Immunology)  
 Gassman P G (Organic Chem.)  
 Goldberg N D (Pharmacology)  
 Michael A F (Nephrology)  
 Najarian J S (Immunology)  
 Quie P G (Immunology)  
 Simmons R L (Immunology)  
 White J G (Pathology)

**Mayo Clinic, Rochester (2)**  
 Owen C A (Hematology)  
 Summerskill W H (Gastroenterol.)

**Missouri (13)**

**Washington University School of  
 Medicine,  
 St. Louis (11)**  
 Avioli L V (Endocrinology)  
 Daughaday W H (Endocrinology)

**Merck Sharp & Dohme Research  
 Labs,**

**Rahway (4)**  
 Hilleman M R (Virology)  
 Lu A Y H (Pharmacology)  
 Rosenthal A S (Immunology)  
 Vagelos P R (Biochemistry)

**Hoffmann-La Roche, Nutley (3)**  
 Conney A H (Pharmacology)  
 Kuntzman R (Pharmacology)  
 Levin W (Pharmacology)

**Institute for Advanced Study,  
 Princeton (2)**

Adler S L (Physics)  
 Bahcall J N (Astrophysics)

**Allied Chemical, Morristown (1)**  
 Hammond G S (Organic Chem.)

**Deborah Heart and Lung Center,  
 Browns Mills (1)**  
 Maroko P R (Cardiology)

**Rutgers University, New Brunswick  
 (1)**  
 Prockop D J (Biochemistry)

**Squibb Institute for Medical  
 Research,  
 Princeton (1)**  
 MacKanness G B (Immunology)

**New Mexico (2)**

**University of New Mexico,  
 Albuquerque (2)**  
 Tomasi T B (Immunology)  
 Williams R C (Immunology)

**Cornell (cont'd.)**

McLafferty F W (Analyt. Chem.)  
 Scheraga H A (Physical Chem.)

**Department of Biochemistry**

Gibson Q H (Physiology)  
 Racker E (Biochemistry)

**Department of Physics**

Salpeter E E (Astronomy)  
 Wilson K G (Physics)

**Medical Center, New York**

Laragh J H (Cardiology)  
 Meister A (Biochemistry)

**Department of Materials Science**  
 Mayer J W (Physics)

**State University of New York (8)**

**Buffalo**  
 Churchill M R (Inorganic Chem.)  
 Levy G (Pharmacology)

**Stony Brook**  
 Brown G E (Physics)  
 Ramirez F (Organic Chem.)

**Syracuse**  
 Oski F A (Hematology)  
 Swarc M (Physical Chem.)

**Albany**  
 Baglioni C (Cell Biol.)

**Brooklyn**  
 Bianco C (Immunology)

**Albert Einstein College of Medicine  
 (6)**

Arias I M (Gastroenterol.)  
 Hellman L (Oncology)  
 Hurwitz J (Molec. Biol.)

**IBM, Armonk (2)**

Clementi E (Theoretical Chem.)  
 Poughkeepsie  
 Eastman D E (Physics), Yorktown  
 Heights

**US Public Health Service Hospital,  
 Staten Island (2)**

Damato A N (Cardiology)  
 Lau S H (Cardiology)

**Albany Medical College (1)**  
 Reichert L E (Endocrinology)

**American Health Foundation,  
 Valhalla (1)**  
 Weisburger J H (Pharmacology)

**City University of New York (1)**  
 Hayon E (Physical Chem.)

**Cold Spring Harbor Laboratory (1)**  
 Sambrook J (Virology)

**Josiah Macy Jr. Foundation (1)**  
 Hirsch J G (Cell Biol.)

**New York Blood Center (1)**  
 Prince A M (Virology)

**Rockefeller Foundation (1)**  
 Warren K S (Immunology)

**Roosevelt Hospital (1)**  
 Weiss H J (Hematology)

**University of Rochester (1)**  
 Bosmann H B (Pharmacology)

**Xerox Corporation, Rochester (1)**  
 Duke C B (Physics)

**Washington U. (cont'd.)**

Jones E G (Neurobiology)  
 Kipnis D M (Cell Biol.)  
 Lacy P E (Pathology)  
 Lowry O H (Biochemistry)  
 Parker C W (Immunology)  
 Roeder R G (Biochemistry)  
 Schlessinger D (Molec. Biol.)  
 Shreffler D C (Genetics)  
 Sobel B E (Cardiology)

**St. Louis University (1)**  
 Green M (Molec. Biol.)

**University of Missouri, Columbia (1)**  
 Davis J O (Physiology)

**New Jersey (30)****Roche Institute for Molecular Biology, Nutley (7)**

Horecker B L (Biochemistry)  
 Kaback H R (Molec. Biol.)  
 Ochoa S (Biochemistry)  
 Shatkin A J (Virology)  
 Spector S (Pharmacology)  
 Udenfriend S (Biochemistry)  
 Weissbach H (Molec. Biol.)

**Bell Laboratories, Murray Hill (5)**  
 Anderson P W (Physics)  
 Guggenheim H J (Inorganic Chem.)  
 Phillips J C (Physics)  
 Remeika J P (Physics)  
 Van Uitert L G (Physics)

**Princeton University (5)**  
 Allen L C (Inorganic Chem.)  
 Gross D J (Physics)  
 Laemmli U K (Molec. Biol.)  
 Mislou K (Organic Chem.)  
 Ostriker J P (Astrophysics)

**New York (85)**

**Rockefeller University (14)**  
 Allfrey V G (Biochemistry)  
 Blobel G K J (Cell Biol.)  
 Choppin P W (Virology)  
 Cohn Z A (Cell Biol.)  
 Darnell J E (Cell Biol.)  
 de Duve C R (Cell Biol.)  
 Edelman G M (Immunology)  
 Kappas A (Pharmacology)  
 Kunkel H G (Immunology)  
 Lipmann F (Biochemistry)  
 Mirsky A E (Cell Biol.)  
 Reich E (Biochemistry)  
 Siekevitz P (Cell Biol.)  
 Zinder N D (Molec. Biol.)

**Columbia University (11)**  
**College of Physicians & Surgeons**  
 Benesch R (Biochemistry)  
 Benesch R E (Biochemistry)  
 Frantz A G (Endocrinology)  
 Hoffman B F (Cardiology)  
 Kabat E A (Immunology)  
 Spiegelman S (Molec. Biol.)

**Department of Chemistry**  
 Bernstein R B (Physical Chem.)  
 Cantor C R (Biochemistry)  
 Nakanishi K (Organic Chem.)  
 Turro N J (Organic Chem.)

**Department of Physics**  
 Lee T D (Physics)

**Cornell University, Ithaca (11)**

**Department of Chemistry**  
 Fisher M E (Physics)  
 Hoffmann R (Inorganic Chem.)

**Einstein Med. (cont'd.)**

Novikoff A B (Pathology)  
 Sonnenblick E H (Cardiology)  
 Suzuki K (Neurology)

**New York University (6)**

Franklin E C (Immunology)  
 Goldstein M (Neurology)  
 Krugman S (Virology)  
 Nussenzweig V (Immunology)  
 Shapiro A L (Biophysics)  
 Weissmann G (Cell Biol.)

**Mount Sinai Medical Center (5)**

Gorlin R (Cardiology)  
 Hirschhorn K (Genetics)  
 Holland J F (Oncology)  
 Popper H (Pathology)  
 Schaffner F (Pathology)

**Brookhaven National Laboratory, Upton (4)**

Hamilton W C (Physical Chem.)  
 Setlow R B (Biophysics)  
 Shirane G (Physics)  
 Studier F W (Molec. Biol.)

**Memorial Sloan-Kettering Cancer Center (3)**

Boyse E A (Immunology)  
 Friedberg C E (Physics)  
 Old L J (Oncology)

**Roswell Park Memorial Institute, Buffalo (3)**

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Helfant R H (Cardiology)  
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Hersh E M (Immunology)  
Hsu T C (Genetics)  
Johnson L R (Physiology)  
Knobil E (Endocrinology)  
Nicolson G L (Cell Biol.)  
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Ross G T (Endocrinology)  
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tions they produced. They found that this measure of "productivity" correlated significantly with several variables they analyzed—total university revenue, faculty size, number of books in the library, number of undergraduate and graduate students, and even their scholastic aptitude scores. However, only 14 of the top 20 most productive universities they identified also appear among the top 20 US, UK, and Canadian institutions on our list, ranked by number of most-cited authors.

They also found that these variables could be predicted simply by knowing how many psychology faculty members at each institution were cited more than 25 times in 1977.<sup>6</sup> Unfortunately, they didn't rank the universities by this measure of "impact." Instead, they provided aggregate data. It would have been

interesting to compare their list with ours, since both are based on citation data. In a future study, we'll make a proper comparison between institutional rankings by total publications and by the number of citations they receive.

In closing, I'd like to point out an error of omission we made in Part 2D of this study.<sup>5</sup> We neglected to include Rosalyn S. Yalow among the endocrinologists on the list who won the Nobel prize. She shared the 1977 Nobel with R. Guillemin and A. V. Schally, both of whom also appear on the list in Part 2D.

\* \* \* \* \*

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