

CHEMICAL HERITAGE FOUNDATION

CHARLES N. SERHAN

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Neil D. Hathaway

at

Longwood Medical Research Center
Boston, Massachusetts

on

6, 8, 9, and 12 July 1993 and 27 June and 5 July 1994

From the Original Collection of the University of California, Los Angeles

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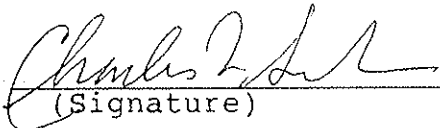
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CHARLES N. SERHAN

1954 Born in New York, New York, on 2 November

Education

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1982 Ph.D., Experimental Pathology, Sackler Institute of Graduate
Biomedical Sciences at New York University School of Medicine

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1982-1986 Karolinska Institute, Stockholm, Sweden
Visiting Scientist

Brigham and Women's Hospital, Boston, Massachusetts

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1987-1991 Associate Biochemist
1992-present Biochemist
1995-present Director , Center of Experimental Therapeutics and Reperfusion Injury

Harvard Medical School

1986-1987 Research Associate
1987-1991 Assistant Professor of Medicine
1991-present Associate Professor of Medicine

Honors

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1982-1984 Postdoctoral fellowship, National Institutes of Health
1984-1985 Swedish Medical Research Council Visiting Scientist Fellowship
1984-1987 Postdoctoral fellowship, Arthritis Foundation
1987-1988 Grant-in-aid award, Massachusetts affiliate, American Heart Association
1987-1990 J.V. Staterfield Arthritis Investigator, Arthritis Foundation
1987-1989 Medical Foundation Research Fellow, Medical Foundation, Inc.
1988-1992 Pew Scholar in the Biomedical Sciences
1988-1991 Grant, Allergy and Infectious Diseases Branch, National Institutes of Health

1990-1995	Established investigatorship, American Heart Association National Center
1991-1994	Clifford M. Clarke Science Award, Arthritis Foundation
1992-1993	Proctor Fund grant, Harvard Medical School

Selected Publications

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ABSTRACT

Charles N. Serhan grew up in Brooklyn, New York, the older of two children. His father, who retired early from shipping work, is of Lebanese descent, his mother Italian. When he was in junior high school, Serhan learned to play the vibraphone and played professionally for a year before college. Although he loved music and fantasized a musical career, he did not like the life of a musician. He had always liked and done well in science, so he decided to enter university, but he continued to play the vibraphone as well. He chose to specialize in biomedical science.

Serhan did his undergraduate work at State University of New York at Stony Brook, where he studied biochemistry and immunohistochemistry, doing research on cell separation. Michael Heidelberger persuaded Serhan to go to graduate school at New York University and to work in the lab of Gerald Weissmann. Serhan spent a summer working with Weissmann at the Woods Hole Marine Biological Laboratory. Weissmann's interest in the role of neutrophils in inflammation led to Serhan's doctoral research on neutrophil remodeling.

After finishing his PhD Serhan took a visiting scientist position at the Karolinska Institute. There he met his future wife, Birgitta Schmidt, who now has a career as a dermatopathologist also at Brigham and Women's Hospital. Serhan was influenced by mentors Helen M. Korchak, Manfred Karnovsky, and Aaron J. Marcus and by reading *The Art of Scientific Investigation* and *Men Like Gods*. Michael Heidelberger gave him advice on how to be a good scientist and on the need to conduct both safe and risky experiments. He collaborated with James L. Madarain studying white cells' interaction with epithelial cells: he was trying to accelerate the healing of wounds. A family illness gave Serhan a more personal appreciation for the value of research and increased his desire to produce something with a clinical application. Serhan's research on the interaction of monosodium urate crystals and human neutrophils in platelets led to the discovery of tetraene compounds; he also continued his research on the lipoxins and their role in regulating inflammation and on intracellular communication channels. He studied lipoxins in trout and describes the accidental discovery of trout lipoxin, discussing the pharmacological potential of the research and the relationship between science and technology.

The interview ends with a discussion of how Serhan advises young scientists to pursue their own interests, citing serendipitous findings that have had implications for the study of inflammation; how he believes that the funding of American science inhibits creativity; and that pharmacology is a basic but neglected discipline. Serhan talks more about his interest in the structural elucidation of cellular messengers; the biological action of lipoxins; the role of monocytes in inflammation; and his examinations of aspirin-sensitive asthmatics with Bruce Levy. Serhan says that today's scientists lead pressured lives, and it is a mistake to evaluate scientists by the number of grants they receive or by the size of their laboratories. He feels the need to tackle long-term research projects, projects that require long-term funding.

Serhan was invited to see Barbara McClintock accept her Nobel Prize, and he talks about Nobel Prize winners as role models. He mentions his lab members Jane Maddox, Joan Claria, and Boshkar Jacobodi; he encourages minority students to become scientists. Serhan concludes his interview with a discussion of the difficulty of balancing family life and work life, especially in a two-career family.

UCLA INTERVIEW HISTORY

INTERVIEWER:

Neil D. Hathaway, Interviewer, UCLA Oral History Program. B.A., English and History, Georgetown University; M.A. and C. Phil., History, UCLA.

TIME AND SETTING OF INTERVIEW:

Place: Serhan's office, Longwood Medical Research Center, Boston.

Dates, length of sessions: July 6, 1993 (86 minutes); July 8, 1993 (83) ; July 9, 1993 (48); July 12, 1993 (73) ; June 27, 1994 (41) ; July 5, 1994 (83).

Total number of recorded hours: 6.9

Persons present during interview: Tapes I-V, Serhan and Hathaway; Tape VI, Serhan, Hathaway, Jane F. Maddox, Joan Claria, and Boshkar Jacobodi.

CONDUCT OF INTERVIEW:

This interview is one in a series with Pew scholars in the biomedical sciences conducted by the UCLA Oral History Program in conjunction with the Pew Charitable Trusts's Pew Scholars in the Biomedical Sciences Oral History and Archives Project. The Project has been designed to document the backgrounds, education, and research of biomedical scientists awarded four-year Pew scholarships, from 1988 through 1992.

In preparing for this interview, Hathaway, in consultation with the director of the UCLA Oral History Program and three UCLA faculty project consultants, developed a topic outline to provide an overall interview framework. Hathaway then held a telephone preinterview conversation with Serhan to obtain extensive written background information (curriculum vitae, copies of published articles, etc.) and agree on a research and interviewing timetable.

Hathaway further reviewed the documentation in Serhan's file at the Pew Scholars Program office in San Francisco, including his proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members. For general background on the recent history of the biological sciences, Hathaway consulted such works as: J.D. Watson et al., *The Molecular Biology of the Gene*. 4th ed. 2 vols. Menlo Park, CA: Benjamin/Cummings, 1987; Lubert Stryer, *Biochemistry*. 3d ed. New York: W.H. Freeman, 1988; *The Journal of the History of Biology*; H.F. Judson, *The Eighth Day of Creation: Makers of the Revolution in Biology*. New York: Simon and Schuster, 1979; and recent issues of *Science*, *Nature*, and *Cell*.

The interview is organized chronologically, beginning with Serhan's childhood in Brooklyn and continuing through his education at State University of New York at Stony Brook and New York University, his postdocs at the Karolinska Institute and Brigham and Women's Hospital, and the establishment of his own lab at Harvard Medical School. Major topics discussed include Serhan's career as a musician, his research on neutrophils, lipoxins, and

cellular communication, and the funding and training of scientists. Near the conclusion of the interview, three of Serhan's laboratory colleagues accepted his invitation to provide brief perspectives about their lab work.

ORIGINAL EDITING:

Vimala Jayanti, editor, edited the interview. She checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation, paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed.

Serhan reviewed the transcript. He verified proper names and made minor corrections.

Steven J. Novak, senior editor, prepared the table of contents and index. Jayanti drew up the biographical summary. Kristian London, assistant editor, assembled the interview history.

TABLE OF CONTENTS

Childhood, Family History, Music, and Science	1
Lebanese ancestry. Childhood in Brooklyn. Father serves in the Korean War. Learns to play the vibraphone and plays professionally for a year before college. Tours with a band. Decides to enter the university but continues to play music on the side. Reasons for specializing in biomedical science. Childhood passion for science. Strong sense of family.	
War, Music, and Graduate Work	27
Parallels between music and science. Competition. War. Vietnam War and the draft. Reading popular science. Musical interests. Works in the Gerald Weissmann lab at New York University (NYU). Michael Heidelberger. Interaction between science and technology. Religious background.	
College, Religion, and Gerald Weissmann's Lab	54
Meets future wife, Birgitta Schmidt, at the Karolinska Institute. Her career as a Dermatopathologist. Stopped playing music professionally. Enters State University of New York at Stony Brook. Part-time jobs. Studies biochemistry and immunohistochemistry. Pursues research on cell separation. Biochemistry program at Stony Brook. Immunologists in the New York region. International College at Stony Brook. Catholicism and science. Graduate school at NYU. Excited by the writings of Weissmann. Spends the summer working with Weissmann at the Woods Hole Marine Biological Laboratory. Mandate of the National Institutes of Health. Education in the United States. Doctoral research on neutrophil remodeling.	
Finishing Graduate School, Postdoctoral Years, and Mentors	99
Weissmann's interest in the role of neutrophils in inflammation. Adopts the Uppsala Universitet model for his thesis. Work of Rolando del Maestro on venule microscopy. Learning to write scientific papers. Weissmann's research on neutrophil activation and phagocytosis. Weissmann's concept of "frustrated phagocytosis" and its relationship to inflammation of the joints. Research on the oxidation of lipids. Weissmann's style and popular writings. Creativity and conformity in scientific research. Lab exchanges with Pierre Borgeat of Université Laval, Québec. Jane F. Maddox's research on lipoxins. Helen M. Korchak, Manfred Karnovsky, and Aaron J. Marcus.	
Thoughts about Science, Collaboration, and Research	122
Influenced by reading <i>The Art of Scientific Investigation</i> and <i>Men Like Gods</i> . Michael Heidelberger's advice on how to be a good scientist. Need to conduct both safe and risky experiments. Interest in scientific biography. How tight funding encourages safe science and discourages risks. Public skepticism about basic science research. Danger of overselling science. Increasing complexity of biological sciences and need for theoretical synthesis. Scope of the term	

<p>“biochemistry.” Collaborates with James L. Madara in studying white cells’ interaction with epithelial cells. Trying to accelerate the healing of wounds. Desire to produce something with a clinical application. Weissmann’s collaborative research with Bengt Samuelsson on leukotrienes. How Karolinska Institute researchers applied mass spectroscopy techniques to elucidate the structure of prostaglandins. Sune Bergstrom and Bengt Samuelsson. Research on substances involved in platelet clotting. Research on the interaction of monosodium urate crystals and human neutrophils in platelets. Discovers tetraene compounds. Samuelsson lab. Funding and creativity.</p>	
<p>Current Work and American Science</p>	<p>158</p>
<p>Research on the lipoxins and their role in regulating inflammation. Intracellular communication channels. Studying lipoxins in trout. Pharmacological potential of the research. Relationship between science and technology. Accidental discovery of trout lipoxins. Advice to young scientists. Serendipitous findings that have had implications for the study of inflammation. Pharmacology as a basic but neglected discipline. Interest in the structural elucidation of cellular messengers. Role of monocytes in inflammation. Examining aspirin-sensitive asthmatics with Bruce D. Levy. Long-term research projects. Juggling family life and career.</p>	
<p>Family, Career, Nobel Laureates, and Comments from Lab Members</p>	<p>201</p>
<p>Serves as a mentor to entering graduate students. Invited to see Barbara McClintock accept her Nobel Prize. Nobel laureates as role models. Balancing family and career. Need for long-term funding in science. Lab members Jane F. Maddox, Joan Claria, and Boshkar Jacobodi.</p>	
<p>Index</p>	<p>231</p>

INDEX

1

15R-HETE, 221, 222
1910 Fruit Company, 14

A

acquired immunodeficiency syndrome, 134
Africa, 76
AIDS. *See* acquired immunodeficiency syndrome
Albert Einstein College of Medicine, 113
Albert Lasker Clinical Medical Research Award, 42
Ali, Muhammad, 33
American Heart Association, 227
American Physical Review, 37
American Society of Cell Biologists, 124
Anderson, David L., 68
Anderson, Paul J., 73, 85
angioplasty, 60
Annie Oakley's, 18
Annual Review of Physiology, 135
apoptosis, 69, 194
arachidonic acid, 101, 153, 155, 156, 157, 188, 190, 196
Arfors, Karl E., 106
Art of Scientific Investigation, 127
Arthritis Foundation, 218
Arvan, Peter R., 143, 148
Asia, 76, 97
Australia, 123
Avery, Oswald T., 152

B

B cells, 70, 188
Back Porch, 17
Baltimore, David, 137
Basilico, Claudio, 82, 84
Beirut, Lebanon, 2
Bell Telephone Company, 68
Bellevue Hospital, 201

Benacerraf, Baruj, 74
Bergstrom, Sune, 43, 155, 156, 157, 184, 192
Berlin, Germany, 98
Beth Israel Hospital, 214
Beveridge, William I.B., 127
Bevilacqua, Michael P., 71
biomembranes, 82, 83
Biomembranes, 82
Block Island, Rhode Island., 67
Bodmer, Walter Fred, 74
Borgeat, Pierre, 119, 120, 155, 158
Boston, Massachusetts, 59, 89, 97, 98, 99, 166
Brady, Hugh R., 221, 227
Brewster McCloud, 123
Brigham and Women's Hospital, 44, 59, 90, 167, 186, 213, 221, 227
Bristol-Myers Squibb Company, 186
Brookhaven National Laboratory, 71
Brooklyn College of Medicine, 71
Brooklyn, New York, 2, 3, 4, 71
Brown, George E., Jr., 139
Brown, Michael S., 75
Bush, President George H.W., 215

C

California, 97, 105, 143, 165
California Institute of Technology, 105
Caltech. *See* California Institute of Technology
Calvin, Melvin, 83
Cambridge, Massachusetts, 95
Canada, 34, 119
Carey, Timothy, 98
Cell Membranes, 82
cell-cell interaction, 159, 160, 164, 165, 172, 189, 191
Centre de Recherche en Rhumatologie et Immunologie, 119
Charemonte, Miss, 24
Children's Hospital Boston, 150

chyme, 207
Citibank, 4
City University of New York, 72
Claria, Joan, 219
Clark, William, 139
clathrin, 75
Clemens, Samuel L., 134
Clinton, President William J., 33
colchicine, 159
Cold Spring Harbor Laboratory, 71
collaboration, 107, 149, 154, 155, 176, 183
Columbia College of Physicians and Surgeons, 42
Columbia University, 14, 72, 155, 157
Connecticut, 40
Cooper Union for the Advancement of Science and Art, 68
Corey, Elias James, 157, 183, 184
Cornell University Medical College, 100
Cort, Bud, 123
Crack the Sky, 81
Crohn's disease, 149
Cronkite, Walter, 37
Crosby, Stills, Nash, and Young, 16
Crystal Ora, 18
Current Contents, 200
cyclooxygenase, 222

D

Darwin, Charles R., 45
Davis, Miles, 93
del Maestro, Rolando, 106
dermatopathology/dermatopathologist, 18, 28, 59, 203
DNA, 75, 83, 84, 108, 168, 180
 cDNA, 166, 190, 192, 193
dogfish, 84, 86, 99, 113
Domkyrka, 57
Downstate. *See* State University of New York Health Science Center
Duke, Patty, 14
dysplastic nevi, 60, 204

E

Eccles, John C., 135

Edmunds, Leland N., Jr., 69
eicosanoids, 100, 121, 122, 184, 218
Elks Club, 49
Ellis, 70
EMBL. *See* European Molecular Biology Laboratory
Emerson, Lake, and Palmer, 16
England, 53, 62, 81, 89, 181
Euglena, 69
Europe, 105, 147
European Molecular Biology Laboratory, 94
Excitement and Fascination of Science, 132

F

Fanelli (mother's maiden name), 1
Fanelli, Dominick (maternal grandfather), 26
Fanelli, Teresa (maternal grandmother), 26
Feinmark, Steven J., 159, 164, 170
Fiore, Stefano, 118, 218, 227
Fischer, Edmond H., 116, 133
Fleming, Alexander, 152
Florida, 3
Foxboro, Massachusetts, 227
France, 9
Friedman, Kenneth, 18
Friends of Hematology, 228
Fulbright Fellowship, 219, 220

G

G proteins, 69
Garfield, Eugene, 200
Georgia, 229
Gilbert, Walter, 75
Glaxo Corporation, 119, 151
Goldstein, Ira M., 75, 113, 155
Goldstein, Joseph L., 75
Golgi, 143
Gonias, Steven L., 73, 85
Goodman, DeWitt S., 100, 157
Gordon Conference, 162
gp120, 134
Granit, Ragnar, 135
grants/funding, 94, 117, 134, 138, 143, 151,

161, 162, 180, 197, 198, 199, 201, 204,
206, 215, 216, 217, 220

H

Hamberg, Mats, 157, 158
Hampton, Lionel, 10, 21
Hanawalt, Philip C., 83
Harold and Maude, 123
Harvard Medical School, 104, 229
Harvard University, 104, 105, 124, 150,
152, 183, 184, 185, 213, 221, 223, 225,
228
Hawaii, 144
Hayes, Robert H., 83
Hedquist, Per, 211
Heidelberg, Germany, 94
Heidelberger, Michael, 39, 42, 43, 44, 45,
46, 47, 84, 103, 114, 132, 134, 135, 178,
184, 210
Helenius, Ari H., 145
high-pressure liquid chromatography, 161,
174, 195
Hit Factory, 17
Houston Astrodome, 123
Houston, Texas, 95
Howard Hughes Medical Institute, 138
HPLC. *See* high-pressure liquid
chromatography
Hsu, Charles, 97, 228
Hutcherson, Bobby, 21

I

Illinois, 66
immunochemistry, 40, 42, 69, 70, 82, 84,
103, 184
Intel Corporation, 97
International Longshoremen's Association,
3
Introduction to Molecular and Cell Biology,
83

J

Jackson, Milt, 10, 21
Jacobodi, Boshkar, 223, 228

James, Henry, 73, 140, 167
Jans Jakob Cafeteria, 56
Japan, 90, 92
Jefferson Airplane, 16
Johnson and Johnson, 138
Johnson, Nancy-Jane, 120
Journal of Biological Chemistry, 83, 177
Jurassic Park, 38, 140

K

Kandel, Eric R., 86
Karnovsky, Manfred, 124
Karnovsky, Morris, 124
Karolinska Institute, 12, 56, 58, 155, 157,
158, 161, 164, 170, 192, 213
Kerouac, Jack, 37
King, Stephen, 53, 134
Kiss, 16
Koch's postulates, 145, 146
Korchak, Helen M., 123
Korea, 7, 33, 36
Korean War, 5, 6, 33
Krebs, Edwin G., 116, 133

L

Las Vegas, Nevada, 12
Lavoisier, Antoine, 86
Lawrence of Arabia, 128
Lebanon/Lebanese, 1, 2
Lederberg, Joshua, 146
Lerner, Richard A., 184
leukotriene B₄, 154, 159
leukotrienes, 100, 120, 154, 155, 159, 169,
170, 171, 172, 176, 189, 190, 191, 192,
195
Levy, Bruce D., 195, 227
Lewis, Meriwether, 115, 139
lipids, 82, 100, 103, 107, 113, 124, 125,
144, 156, 157, 158, 167, 173, 189, 191,
192
phospholipids, 100, 101, 103, 107, 113,
124, 153, 157
liposomes, 84, 100, 108, 112, 113
lipoxin A₄, 149, 172, 173, 195, 214
lipoxins, 121, 124, 149, 165, 166, 167, 169,

171, 172, 173, 176, 177, 182, 189, 190,
192, 193, 194, 195, 196, 219, 222
lipoxygenase, 148, 155, 157, 160
 12-lipoxygenase, 157, 158, 159
 15-lipoxygenase, 159
 5-lipoxygenase, 158, 159
Lives of a Cell, 115
Long Island, New York, 3, 81
Lorand, Laszlo, 86
LTB₄, 159
Lupski, James R., 73

M

Madara, James L., 149, 167
Maddox, Jane F., 118, 120, 162, 217
Maharishi Mahesh, 39
Malmsten, Curt L., 100, 155
Marcus, Aaron J., 100, 101, 124, 153, 157,
 164, 170
mass spectrometer, 29, 46, 47, 185
mass spectrometry, 155, 189
Massachusetts Institute of Technology, 97,
 98, 206, 228
Maxam, Allan M., 75
Mayans, 128
McClintock, Barbara, 212
McElroy, William, 135
McLaughlin, Stuart G., 82
Mead, Margaret, 135
Medical Scientist Training Program, 104
Men Like Gods, 54, 128
Mendel, Gregor, 144
mentor, 99, 115, 118, 119, 124, 156, 184,
 188, 197, 208
Metchnikoff, Elie, 84, 181, 213
Middle East/Middle Eastern, 1, 76
Milstein, César, 74
Miro, Vladi, 221
Mississippi River, 137
MIT. *See* Massachusetts Institute of
 Technology
Modern Jazz Quartet, 10
monocytes, 193, 194, 219
monosodium urate crystals, 110, 159
Montreal, Québec, Canada, 35

Morehouse College, 223, 224, 229
Muller, William A., 124

N

Nantucket, Massachusetts, 88
naphthalene esterases, 70
National Geographic, 37
National Institutes of Health, 18, 82, 87, 93,
 94, 103, 117, 134, 137, 138, 162, 199,
 217, 218, 220
negative ion chemical ionization, 189
neutrophil, 83, 84, 100, 103, 106, 107, 123,
 124, 154, 158, 159, 166, 167, 190, 191,
 192, 214
New England Conservatory of Music, 62
New Jersey, 23, 40, 106
New Testament, 52
New York (state), 40
New York City, New York, 1, 2, 4, 11, 17,
 61, 62, 74, 83, 96, 99, 104, 115, 154, 155,
 170
New York Dolls, 15
New York University, 17, 18, 40, 72, 73,
 74, 81, 82, 83, 87, 89, 97, 100, 103, 105,
 109, 110, 123
New Yorker, 37
Newsweek, 140
Nicolaou, Kyriacos C., 182, 183, 184
NIH. *See* National Institutes of Health
Nixon, President Richard M., 76
Nobel Prize, 74, 84, 116, 133, 135, 146,
 155, 156, 157, 160, 181, 182, 183, 212
Norsemen, 59
North Atlantic Treaty Organization, 220
North Carolina, 66
Norvo, Red, 21
Not Just Another Pretty Face, 81
NYU. *See* New York University

O

O'Keefe, Paul, 13
Oceanside, New York, 3
Ochoa, Severo, 84, 115
Ohio, 66
Om, 68

Organic Chemistry of Life, 82
oxygen radicals, 113

P

pannus, 112
Paris, France, 57
patents, 94, 138, 150, 152
pathology, 18, 59, 69, 70, 75, 82, 104, 108,
148
Patty Duke Show, 14
Pennsylvania State University, 119, 217
Pew Scholars Program in the Biomedical
Sciences, 73, 144, 172, 198, 203, 214, 217
Oral History and Archives Project, 146,
229
phagocytosis, 109, 110, 111, 194
Pharmacia Biotech, 47
Pilgrims, 59
polymerase chain reaction, 137
polymorphonuclear cell, 100, 154, 194, 221
Princeton University, 72, 106
prostaglandin, 155, 156, 158, 184, 222
prostaglandin F, 156

Q

Québec, Montreal, Canada, 119

R

Rando, Robert R., 104
Reagan, President Ronald W., 115
Reddy, C. Channa, 119, 218
religion
catechism, 51
Christian, 2
Druze, 2
Holy Bible, 53
King James Version [Holy Bible], 53
Maronite, 2
Protestant, 52, 53, 89
Psalms, 53
Roman Catholic, 51, 52, 53, 129
Yeshua ben Yusuf, 52
retinoic acid, 157
Rockefeller University, 114

Romano, Mario, 226, 227
Rowley, Andrew F., 172, 181
Russia, 147

S

Sackler Institute of Graduate Biomedical
Sciences, 83, 103
Saint Anthony, 56
Samuelsson, Bengt, 43, 100, 120, 154, 155,
157, 158, 160, 161, 166, 170, 178, 183,
188, 191, 192, 210
Sandoz Pharmaceuticals, 96, 138
Sanger sequencing, 75
Scandella, Carl J., 82
Scandinavia, 57, 58, 105, 191
Schmidt, Olle (father-in-law), 56
Schmidt-Thorn, Margarita (sister-in-law),
60
Scientific American, 37, 38, 39, 82, 83
Scripps Research Institute, 106, 138, 184
Serhan, Anton O. (son), 11, 26, 55, 56, 61,
150, 198
Serhan, Birgitta Schmidt (wife), 26, 56, 60,
198
Serhan, Charles (paternal grandfather), 2
Serhan, Dorothy Jean (mother), 1, 58
Serhan, Sophie (paternal grandmother), 1
Serhan, William (father), 1, 56, 126
Servicemen's Readjustment Act of 1944, 6
Sicily, 181
Simchowitz, Louis, 98
simian virus 40, 82
Skalka, Anna Marie, 145
Small, Mary, 215
Song, Sing, 228
Spain, 219
Spielberg, Steven, 140
Stage XII, 67
starfish, 181, 182
State University of New York at
Binghamton, 72
State University of New York at Buffalo, 72
State University of New York at Stony
Brook, 3, 41, 66, 67, 71, 73, 75, 79, 85,
103

State University of New York Health
Science Center, 18, 71, 72
State University of New York Health
Science Center at Brooklyn College of
Medicine, 18, 71
State University of New York Health
Science Center at Syracuse College of
Medicine, 72
Stern, Arnold, 113
Stockholm, Sweden, 12, 16, 55, 154
Stony Brook Jazz and Rock Ensemble, 66,
77
Stony Brook University Hospital, 71
Strominger, Jack, 74
Stuyvesant Town, 18
SV40. *See* simian virus 40
Svedberg units, 43
Svedberg, Theodor, 43
Sweden, 43, 56, 57, 58, 60, 87, 89, 90, 105,
125, 136, 153, 154, 159, 164, 165, 191,
210
Switzerland, 74
Szent-Györgyi, Andrew G., 86

T

T cells, 70, 188
Taxol, 182, 183
tenure, 139
tetraene, 125, 160, 177
Texas, 7
Texas Instruments, 53
Thomas, Lewis, 115
Thorn, Johan (wife's brother-in-law), 60
thromboxane, 157, 158
Time, 140
Tonegawa, Susumu, 74
Transjordan, 1
trout, 171, 172, 176, 181

U

U.S. House of Representatives, 139, 141
UCSF. *See* University of California, San
Francisco
ultracentrifugation, 43
United Kingdom, 176

United States of America, 1, 2, 26, 43, 58,
60, 83, 90, 146, 147, 161, 176, 185, 191,
192, 200
Université Laval, 119, 120
University of California, 72
University of California, Berkeley, 72
University of California, San Francisco,
138, 139, 165
University of Messina, 181
University of Pennsylvania, 184
Upjohn Company, 192
Uppsala, Sweden, 43, 57, 60, 105, 106
ureteropelvic junction disorder, 150

V

Varmus, Harold E., 199, 214
Venice, Italy, 57
Veterans Administration Medical Center,
100, 227
vibraphone, 8, 9, 10, 11, 17, 18, 20, 21, 24
Vietnam, 7, 32, 33, 34
Vikings, 59
Village Voice, 55
virology, 82, 84, 103
Visscher, Maurice B., 135
von Euler, Hans, 155

W

Wald, George, 86
Wales, 96
Washington University in St. Louis, 98, 105
Weissmann, Gerald, 40, 42, 82, 83, 84, 85,
86, 87, 88, 89, 99, 100, 103, 106, 107,
108, 109, 110, 111, 113, 114, 115, 118,
123, 124, 125, 153, 154, 155, 157, 159,
170, 178, 191, 201, 210
Weller, Peter F., 214
Weller, Thomas H., 214
Wells, Herbert George, 53, 54, 128, 129,
130
Werner, Denise Serhan (sister), 4
Westinghouse Science Talent Search, 97
Westport, Connecticut, 81
Wiesel, Torsten N., 214
Williams, William Carlos, 21

Woods Hole Marine Biological Laboratory,
42, 84, 85, 86, 87, 88, 89, 90, 97, 99, 100,
105, 113, 115, 125, 155, 157
Woodward, Robert B., 157
World War I, 1, 26
World War II, 33, 34, 36, 136

Y

Yeshiva University, 113

Yu, Chen, 228

Z

Zombies, The, 14
Zuker, Charles S., 91

B

β -keratin, 157