

Curriculum Vitae

Harvey Babich

Stern College for Women
Yeshiva University
245 Lexington Avenue
New York, NY 10016-4699

telephone: 212 340-7739 (laboratory)

e-mail: babich@yu.edu

fax: 212 340-7883

Education:

A.A., Yeshiva College, New York, NY, 1968

B.A., Yeshiva College, New York, NY, 1968

M.S., Long Island University, Brooklyn, NY, 1971

Microbiology

Thesis dissertation: Chloroform inactivation of Herpesvirus hominis: types 1 and 2

Adviser: Dr. S. Carito

Ph.D., New York University, New York, NY, 1976

Microbial Ecology; Pollution

Thesis dissertation: Effects of clay minerals and pH on the response of
microorganisms to cadmium in pure culture and in soil

Adviser: Dr. G. Stotzky

Professional Experience:

1987-present: Professor, Department of Biology, Stern College for Women, Yeshiva
University, New York, NY (Associate Professor, 1987-1993; tenured -1990;
appointed Department Head, summer 2000)

1984-1991: Senior Research Associate, Laboratory for *In Vitro* Toxicologic Assay
Development, The Rockefeller University, New York, NY

1980-1984: Senior Research Scientist, Laboratory of Microbial Ecology, Department of
Biology, New York University, New York, NY

1979-1980: Senior Staff Scientist, Toxic Substances Program, Environmental Law
Institute, Washington, DC

1976-1979: Adjunct Assistant Professor, Department of Biology, New York University,
New York, NY

1976-1979: Research Associate, Laboratory of Microbial Ecology; New York University,
New York, NY

1973-1976: Adjunct Instructor, Department of Biology, New York University, New York,
NY

1972-1973: Teaching Fellow, Department of Biology, New York University, New York,
NY

- 1970-1975: Research Assistant, Laboratory of Microbial Ecology, New York University, New York, NY
- 1969-1970: Teaching Fellow, Department of Biology, Long Island University, Brooklyn, NY
- 1969: Laboratory Assistant, Laboratory of Histology, Osborne Laboratories of Marine Sciences, Coney Island Aquarium, Brooklyn, NY

Courses Taught:

- New York University: Principles of Biology (majors)
- Stern College for Women: Essentials of Biology (nonmajors); Essentials of Biology (honors); Genetics; Microbiology; Environmental Toxicology; Independent Research; Honors Research; Experimental Methods in Biological Research

Awards:

- 2013: Guest of Honor, Anne Scheiber Fellows Brunch at AECOM (October 27th)
- 2003: Senior Class, Professor of the Year, Stern College for Women, Yeshiva University
- 2000: Dean Karen Bacon Award for a Senior Faculty Member, Stern College for Women, Yeshiva University
- 1996: Professor of the Year. Stern College for Women, Yeshiva University.
- 1990: Professor of the Year. Stern College for Women, Yeshiva University.
- 1986: Fellow (elected). American Academy of Microbiology, Washington, DC
- 1976: New York University Club Award, presented to a recent Ph.D. recipient; based on “merits of academic excellence, participation in extracurricular activities, and demonstrated leadership abilities.”
- 1975: Gladys Matyko Award for Excellence in Biology, Department of Biology, New York University.
- 1974: Honorable mention, Gladys Matyko Award for Excellence in Biology, Department of Biology, New York University.

Memberships:

- American Association for the Advancement of Science
- Association of Orthodox Jewish Scientists
- American Society for Microbiology

Involvements:

- 2000 (summer) Scientific Advisor (interim appointment), American Fund for Alternatives to Animal Research
- 1992-2005. Editorial board member for “aquatic toxicology – metals,” Bulletin of Environmental Contamination and Toxicology.
- 1988-1993. Member. Committee on Scientific Issues Surrounding the Regulation of Pesticides in the Diets of Infants and Children. National Research Council,

1986-1987. National Academy of Sciences
Committee on Multimedia Approaches to Pollution Control, National
Research Council, National Academy of Sciences.

Presentations:

ASTM Symposium on Environmental Toxicology & Risk Assessment
Bristol-Myers Squibb
Department of Biology, Long Island University
Department of Biology, New York University
Department of Chemistry, Stern College for Women
Department of Plant Pathology, Cook College
Lederle Laboratories
Schering-Plough Research Institute
Tissue Culture Association, Annual Meeting (session sponsored by the
Industrial *In Vitro* Toxicology Group)

Involvements at Stern College for Women:

Adviser: Biology Club; Sigma Delta Rho; SURGE
Committee on Academic Standards\
Curriculum Committee (Middle States)
Curriculum Review Committee
Dean Karen Bacon Evaluation Committee
Dr. Stephan Bosworth Evaluation Committee
Executive Committee, Division of Natural Sciences & Mathematics
Faculty Adviser, Journal of Undergraduate Science Research
Faculty Assembly Executive Committee
Faculty Committee/Strategic Planning & Curriculum Review
Honors Committee
Undergraduate Senate
Safety Committee
Summer Experience at YU
Task Force on Grading
Wilf Scholar Program, 2004-2005
YU Review, editorial board member

***Ad hoc* reviewer:**

--**Journals:** Acta Pharmacologica Sinica
Acta Odontologica Scandinavia
Analytical Biochemistry
Applied Geochemistry
Aquatic Toxicology
Archives of Environmental Contamination and Toxicology
Archives of Oral Biology

ATLA (Alternatives to Laboratory Animals)
Biochemical Pharmacology
Biomedical and Environmental Sciences
Bioorganic & Medicinal Chemistry
Bulletin of Environmental Contamination and Toxicology
Canadian Journal of Microbiology
Cancer Chemotherapy and Pharmacology
Cancer Letters
Current Topics in Nutraceutical Research
Environmental Pollution
Environmental Research
Environmental Toxicology and Chemistry
FEBS Letters
Food and Chemical Toxicology
Frontiers in Bioethics (Columbia University Press)
In Vitro Toxicology
International Journal of Cancer
In Vitro & Molecular Toxicology
Journal of Environmental Science and Health
Journal of Food Biochemistry
Leukemia and Lymphoma
Nutrition and Cancer: An International Journal
Oral Oncology
Pharmacological Research
Science of the Total Environment
Soil Biology and Biochemistry
Toxicity Assessment
Water, Air, and Soil Pollution

--Grants: American Fund for Alternatives to Animal Research
National Science Foundation
Natural Sciences and Engineering, Research Council of Canada
U.S. Department of Defense
Hudson River Foundation

Consulting: Center for Science in the Public Interest, Washington, DC
Committee on Biological Markers, National Research Council, National
Academy of Sciences, Washington, DC
Department of Pharmacology, NYU Medical Center, NY
Envirosphere, Inc., NY
Holt, Rinehart, and Winston, NY
Institute for Risk Analysis, School of Business Administration, The American
Washington, DC
Middleton Township, Levittown, PA
Research and Evaluation Associates, Inc., Chapel Hill, NC
Tarantini Associates, Ltd., NY

Thompson Medical Company, NY

Miscellaneous:

Television interview concerning research on pollution and microbial ecology,
Dr. Frank Fields, NBC (channel 4) News, December 26, 1978

Support (Funding/Equipment/Disposables/Test Agents):

At: Stern College for Women

- 2013: Yeshiva University, support for two students for summer research internships
2012: Yeshiva University, support for two students for summer research internships
2010: Yeshiva University, support for two students for summer research internships
2009: Yeshiva University, support for two students for summer research internships
2008: Yeshiva University, support for two students for summer research internships
2007: Yeshiva University, support for two students for summer research internships
2005: Yeshiva University, support for two students for summer research internships
2004: Yeshiva University, support for two students for summer research internships
2003: Yeshiva University, support for two students for summer research internships
2002: Schering-Plough Research Institute, \$20,000; Unilever Bestfoods North America,
donation of polyphenolics from green & black tea
2001: Schering-Plough Research Institute, \$25,000;
Yeshiva University, Summer Research Fellowship, \$15,000;
Promega, donation of LDH and caspase assay kits;
Bristol-Myers Squibb, donation of BCNU.
2000: Schering-Plough Research Institute, \$25,000;
Yeshiva University, Summer Research Fellowship, \$10,000;
Gillette Medical Evaluation Laboratories, \$10,000;
Avon Products, Inc. \$1,000 donation toward undergraduate research travel to
scientific meetings;
Alexis Corporation, donation of nitric oxide donor chemicals.
1999: Schering-Plough Research Institute, \$25,000;
Gillette Medical Evaluation Laboratories, \$5,000;
Avon Products, Inc. \$1,000 donation toward undergraduate research travel to
scientific meetings;
Boehringer Mannheim, donation of a 5-bromo-2'-deoxy-uridine labeling and
detection kit (III) and a cell proliferation WST-1 reagent kit.
1998: Schering-Plough Research Institute, \$25,000;
Gillette Medical Evaluation Laboratories, \$5,000;
Avon Products, Inc. \$1,000 donation toward undergraduate research travel to
scientific meetings;
Slim Fast Nutritional Foods Foundation, \$500;
Boehringer Mannheim, donation of a 5-Bromo-2'-Deoxy-Uridine Labeling and
Detection Kit (III.)

- 1997: Schering-Plough Research Institute, \$20,000;
 Gillette Medical Evaluation Laboratories, \$5,000;
 Beckman Instruments, Inc., \$1,000;
 Avon Products, Inc., \$1,000 donation toward undergraduate research travel to scientific meetings;
 Slim Fast Nutritional Foods Foundation, \$500;
 Alexis Corporation, donation of nitric oxide donor chemicals;
 Promega Corporation, CytoTox 96TM Nonradioactive Cytotoxicity Kit.
- 1996: Schering-Plough Research Institute, \$25,000;
 Gillette Medical Evaluation Laboratories, \$5,000;
 Thompson Medical Company, \$1,000;
 The Procter and Gamble Company, \$750;
 Promega Corporation, CytoTox 96TM Nonradioactive Cytotoxicity Kit, Cell Proliferation Kit, and Apoptosis Detection System, Fluorescein Kit.
- 1995: Schering-Plough Research Institute, \$25,000;
 Gillette Medical Evaluation Laboratories, \$5,000;
 Thompson Medical Company, \$1,000;
 The Procter and Gamble Company, \$750;
 Perkin-Elmer Corporation, Gene AMP PCR System;
 Promega Corporation, CytoTox 96TM Nonradioactive Cytotoxicity Kit.
- 1994: Schering-Plough Research Institute, \$25,000;
 Central Research Division, Pfizer, Inc., \$7,500;
 Hoffmann LaRoche, Inc., \$2,000;
 Burroughs Wellcome Co., \$1,000;
 The Procter and Gamble Company, \$500;
 Cambridge Technology, Inc., Series 7600 Microplate Fluorometer;
 Carl Zeiss, Inc., fluorescence microscope;
 Labline Instruments, Inc., bi-directional rotator, orbit shaker, and a titerplate shaker;
 Promega Corporation, CytoTox 96TM Nonradioactive Cytotoxicity Kit.
- 1993: Schering-Plough Research Institute, \$25,000;
 Central Research Division, Pfizer, Inc., \$7,500;
 Thompson Medical Company, \$5,000;
 Hoffmann LaRoche, Inc., \$2,000

At: The Rockefeller University

International Foundation for Ethical Research, Use of metabolizing systems in the neutral red assay to develop an alternative to the Draize rabbit skin tolerance test," 1 year, \$15,000, H. Babich (PI) and E. Borenfreund (Co-PI), 1989.

International Foundation for Ethical Research, Incorporation of bioactivation systems into the neutral red assay for the screening of chemicals for their acute toxicities," 1 year, \$25,000, H. Babich (PI) and E. Borenfreund (Co-PI), 1989.

The Johns Hopkins University, Center for Alternatives to Animal Testing, *In vitro* cytotoxicity assays with human skin cell types,” 1 year, \$19,000, H. Babich (PI) and E. Borenfreund (Co-PI), 1987-1988.

U.S. Environmental Protection Agency, Carcinogenic transformation studies *in vitro* with fish embryos and cell cultures,” 3 years, \$273,460, H. Babich (PI) and E. Borenfreund (Co-PI), 1987-1990.

Schering Corporation funding in general support of the Laboratory for *In Vitro* Toxicologic Assay Development, \$15,000, 1986-1987.

Hoffmann LaRoche, funding in general support of the Laboratory for *In Vitro* Toxicologic Assay Development, \$5,000, 1987.

At: New York University

U.S. Environmental Protection Agency, “Toxicity of heavy metals to microbes and microbe-mediated ecologic processes: effect of chemical and environmental factors,” 3 years, \$352,197, terminated 1984, G. Stotzky (PI) and H. Babich (Co-PI).

Listed In:

American Men and Women in Science
Who’s Who in the East
Who’s Who in American Education
Who’s Who Among America’s Teachers

Publications

Books:

Babich, H., LoBue, J., Goodenough, J. and H.G. Dowling, 1975, **Principles of Biology – I, A Laboratory Manual**, HISS Publications, NY, NY (addition of microfiche, 1976)

Goodenough, J., Babich, H., LoBue, J. and H.G. Dowling. 1975, **Principles of Biology – II, A Laboratory Manual**, HISS Publications, NY, NY

Babich, H., LoBue, J. and H.G. Dowling, 1979, **Principles of Biology, A Laboratory Manual**, Avery Publishing Corporation Group, Inc., Wayne, NJ (revised, 1987).

Research:

Babich, H. and G. Stotzky, 1972, Ecologic ramifications of air pollution, *In Proceedings of the International Conference on Transportation and the Environment*, Society of Automotive Engineers, Inc., NY, NY, pp.198-214 (reprinted in: **Society of Automotive Engineers, Transactions**, 81:1955-1971).

Babich, H. and G. Stotzky, 1974, Air pollution and microbial ecology, **CRC Crit. Rev. Environ. Contr.**, 4:353- 421.

Babich, H. and G. Stotzky, 1977, Sensitivity of various bacteria, including actinomycetes, and fungi to cadmium and the influence of pH on sensitivity, **Appl. Environ. Microbiol.**, 33:681-695.

Babich, H. and G. Stotzky, 1977, Reductions in the toxicity of cadmium to microorganisms by clay minerals, **Appl. Environ. Microbiol.**, 33:696-705.

Babich, H. and G. Stotzky, 1977, Effect of cadmium on fungi and on interactions between fungi and bacteria in soil: influence of clay minerals and pH, **Appl. Environ. Microbiol.**, 33:1059-1066.

Babich, H. and G. Stotzky, 1978, Influence of pH on inhibition of bacteria, fungi, and coliphages by bisulfite and sulfite, **Environ. Res.**, 15:405-414.

Babich, H. and G. Stotzky, 1978, Atmospheric sulfur compounds and microbes, **Environ. Res.**, 15:405-414.

Babich, H. and G. Stotzky, 1978, Toxicity of zinc to fungi, bacteria, and coliphages: influence of chloride ions, **Appl. Environ. Microbiol.**, 36:904-913.

Babich, H. and G. Stotzky, 1978, Effects of cadmium on the biota: influence of environmental factors, **Adv. Appl. Microbiol.**, 23:55-117.

Babich, H. and G. Stotzky, 1978, Atmospheric pollution: impacts on and interactions with microbial ecology, *In **Microbial Ecology: Proceedings in Life Sciences***, Loutit, M.W. and J.A.R. Miles (eds.), Springer-Verlag, NY, NY, pp. 13-17.

Babich, H. and G. Stotzky, 1978, Effects of cadmium on microbes *in vitro* and *in vivo*: influence of clay minerals, *In **Microbial Ecology: Proceedings in Life Sciences***, Loutit, M.W. and J.A.R. Miles (eds.), Springer-Verlag, NY, NY, pp.13-17.

Babich, H. and G. Stotzky, 1978, Atmospheric pollution and microorganisms, **ASM News**, 44:547-550.

Babich, H. and G. Stotzky, 1979, Abiotic factors affecting the toxicity of lead to fungi, **Appl. Environ. Microbiol.**, 38:506-514.

Babich, H. and G. Stotzky, 1979, Differential toxicities of mercury to bacteria and bacteriophages in sea and in lake water, **Can. J. Microbiol.**, 25:1252-1257.

Babich, H. and G. Stotzky, 1980, Reductions in inactivation rates of bacteriophages by clay minerals in lake water, **Water Res.**, 14:185-187.

Babich, H. and G. Stotzky, 1980, Physicochemical factors that affect the toxicity of heavy metals to microbes in aquatic habitats, *In **Proceedings of the ASM Conference, Aquatic Microbial Ecology***, Colwell, R.R. and J. Foster (eds.), University of Maryland Sea Grant Publication, College Park, MD, pp.181-203.

Stotzky, G. and H. Babich, 1980, Mediation of the toxicity of pollutants to microbes by the physicochemical composition of the recipient environment, *In **Microbiology - 1980***, Schlessinger, D. (ed.), ASM, Washington, DC, pp. 352-354.

Babich, H. and G. Stotzky, 1980, Environmental factors that influence the toxicity of heavy metals and gaseous pollutants to microorganisms, **CRC Crit. Rev. Microbiol.**, 8:99-145.

Babich, H., Davis, D.L. and G. Stotzky, 1980, Acid precipitation. Causes and consequences, **Environment**, 22:6-13, 40-41.

Davis, D.L., Babich, H., Adler, R. and S. Dunwoody, 1980, **Basic Science Forcing Laws and Regulatory Case Studies: Kepone, DBCP, Halothane, Hexane, and Carbaryl**, Environmental Law Institute, Washington, DC 140 pages.

Babich, H., Davis, D.L. and G. Stotzky, 1981, Dibromochloropropane (DBCP): a review, **Sci. Total Environ.**, 17:207-221.

Babich, H., Davis, D.L. and J. Trauberman, 1981, Environmental quality criteria: some considerations, **Environ. Manage.**, 5:191-205.

Babich, H. and D.L. Davis, 1981, Food tolerances and action levels: do they adequately protect children? **BioScience**, 31:429-438.

Babich, H. and D.L. Davis, 1981, Phenol: a review of environmental and health risks, **Reg. Toxicol. Pharmacol.**, 1:90-109.

Davis, D.L. and H. Babich, 1981, Chemical control and prevention. *In* **Umweltschutz der Achtziger Jahre**, Institut für Umweltschutz der Universität Dortmund, Germany, pp. 124-135.

Babich, H. and G. Stotzky, 1981, Influence of water hardness on the toxicity of heavy metals to fungi, **Microbios Lett.**, 16:79-84.

Babich, H. and G. Stotzky, 1981, Manganese toxicity to fungi: influence of pH, **Bull. Environ. Contam. Toxicol.**, 27:474-480.

Babich, H. and G. Stotzky, 1981, Components of water hardness that reduce the toxicity of nickel to fungi, **Microbios Lett.**, 18:17-24.

Babich, H., Schiffenbauer, M. and G. Stotzky, 1982, Comparative toxicity of trivalent and hexavalent chromium to fungi, **Bull. Environ. Contam. Toxicol.**, 28:452-459.

Babich, H. and G. Stotzky, 1982, Gaseous and heavy metal air pollutants, *In* **Experimental Microbial Ecology**, Burns, R.G. and J.H. Slater (eds.), Blackwell Scientific Publication, Ltd., Oxford, England, Chapter 36, pp. 631-670.

Babich, H., Gamba-Vitalo, C. and G. Stotzky, 1982, Comparative toxicity of nickel to mycelial proliferation and spore formation, **Arch. Environ. Contam. Toxicol.**, 11:465-468.

Babich, H. and G. Stotzky, 1982, Influence of chloride ions on the toxicity of cadmium to fungi, **Zbl. Bakt. Mikrobiol. Hyg.**, 3C:421-426.

Babich, H., 1982, Butylated hydroxytoluene (BHT): a review, **Environ. Res.**, 29:1-29.

Babich, H. and G. Stotzky, 1982, Nickel toxicity to microbes: effect of pH and implications for acid rain, **Environ. Res.**, 29:335-350.

Babich, H. and G. Stotzky, 1982, Toxicity of nickel to microorganisms in soil: influence of some physicochemical characteristics, **Environ. Pollut.**, 29A:303-315.

Babich, H. and G. Stotzky, 1982, Nickel toxicity to fungi: influence of environmental factors, **Ecotoxicol. Environ. Saf.**, 6:577-589.

Babich, H. , Schiffenbauer, M. and G. Stotzky, 1982, Effect of sterilization method on the toxicity of Cr³⁺ and Cr⁶⁺ to fungi, **Microbios Lett.**, 20:55-64.

Babich, H., Davis, D.L. and R. Adler, 1982, Updating federal standards for toxicants: n-hexane as the model, **Environ. Monit. Assess.**, 2:287-299.

Stotzky, G. and H. Babich, 1983, Physicochemical environmental factors influence the toxicity of heavy metals to microbes, *In Les Feuilles de L'Unite Etudo Recherche, Physique-Chimie-Biologie, 1981-1982*, Universite de Nancy, France, 5:104-141.

Babich, H. and G. Stotzky, 1983, Nickel toxicity to estuarine/marine fungi and its amelioration by magnesium in sea water, **Water, Air, Soil Pollut.**, 19:193-202.

Babich, H. and G. Stotzky, 1983, Influence of chemical speciation on the toxicity of heavy metals to the microbiota, *In Aquatic Toxicology, Advances in Environmental Science and Technology*, Nriagu, J.O. (ed.), Wiley and Sons, Inc., NY, NY, pp.1-46.

Babich, H. and G. Stotzky, 1983, Developing standards for environmental toxicants: the need to consider abiotic environmental factors and microbe-mediated ecologic processes, **Environ. Health Perspect.**, 49:247-260.

Babich, H., Schiffenbauer, M. and G. Stotzky, 1983, Sensitivity of coliphage T1 to nickel in fresh and salt waters, **Curr. Microbiol.**, 8:101-105.

Babich, H., Bewley, R.J.F. and G. Stotzky, 1983, Application of the "ecological dose" concept to the impact of heavy metals on some microbe-mediated ecologic processes in soil, **Arch. Environ. Contam. Toxicol.**, 12:421-426.

Babich, H. and G. Stotzky, 1983, Physicochemical factors of natural reservoirs affect the transformation and exchange of heavy metals toxic to microbes, *In Environmental Biogeochemistry, Proc. 5th Int. Sym. Biogeochemistry (ISEB)*, Hallberg , R.O. (ed.), **Ecol. Bull. (Stockholm)**, 35:315-323.

Babich, H. and G. Stotzky, 1983, Temperature, pH, salinity, hardness, and particulates mediate nickel toxicity to eubacteria, an actinomycete, and yeasts in lake, simulated estuarine, and sea waters, **Aquat. Toxicol.**, 3:195-208.

Babich, H. and G. Stotzky, 1983, Further studies on environmental factors that modify the toxicity of nickel to microbes, **Reg. Toxicol. Pharmacol.**, 3:82-99.

Babich, H. and G. Stotzky, 1983, Toxicity of nickel to microbes: environmental aspects, **Adv. Appl. Microbiol.**, 29:195-265.

Babich, H. and G. Stotzky, 1983, Synergism between nickel and copper in their toxicity to microbes: mediation by pH, **Ecotoxicol. Ecotoxicol. Saf.**, 7:576-587.

- Stotzky, G. and H. Babich, 1984, Fate of genetically-engineered microbes in natural environments, **Recomb. DNA Tech. Bullet.**, 7:163-188.
- Babich, H., Devanas, M.A. and G. Stotzky, 1985, The mediation of the mutagenicity and clastogenicity of heavy metals by physicochemical factors, **Environ. Res.**, 37:253-286.
- Babich, H. and G. Stotzky, 1985, Heavy metal toxicity to microbe-mediated ecologic processes: a review and potential application to regulatory policy, **Environ. Res.**, 36:111-137.
- Babich, H and G. Stotzky, 1985, A microbial assay for determining the influence of physicochemical environmental factors on the toxicity of organics: phenol, **Arch. Environ. Contam. Toxicol.**, 14:409-415.
- Garcia-Toledo, A., Babich, H. and G. Stotzky, 1985, Adaptation of *Rhizopus stolonifer* and *Cunninghamella blakesleeana* to copper: cotolerance to cadmium, cobalt, nickel, and lead, **Can. J. Microbiol.**, 31:485-492.
- Babich, H., 1985, Reproductive and carcinogenic health risks to hospital personnel from chemical exposure: a literature review, **J. Environ. Hlth.**, 48:52-56.
- Stotzky, G. and H. Babich, 1986, Physicochemical environmental factors affect the response of microorganisms to heavy metals: implications for the application of microbiology to mineral exploration, **In Organic Matter, Biological Systems and Mineral Exploration**, Carlisle, D. (ed.), Prentice-Hall, Inc., Englewood Cliffs, NJ, Chapter 15, pp. 238-264.
- Babich, H. and G. Stotzky, 1986, Environmental factors affect the utility of microbial assays for the toxicity and mutagenicity of chemical pollutants, **In Toxicity Testing Using Microorganisms**, Vol. 2, Dutka, B.J. and G. Bitton (eds), CRC Press, Boca Raton, FL., pp. 9-42.
- Stotzky, G. and H. Babich, 1986, Survival of, and genetic transfer by, genetically engineered bacteria in natural environments, **Adv. Appl. Microbiol.**, 31:93-138.
- Babich, H., Puerner, J.A. and E. Borenfreund, 1986, *In vitro* cytotoxicity of metals to bluegill (BF-2) cells, **Arch. Environ. Contam. Toxicol.**, 15:31-37.
- Babich, H., Shopsis, C. and E. Borenfreund, 1986, *In vitro* cytotoxicity testing of aquatic pollutants (cadmium, copper, zinc, nickel) using established fish cell lines, **Ecotoxicol. Environ. Saf.**, 11:91-99.
- Stark, D.M., Shopsis, C., Borenfreund, E. and H. Babich, 1986, Progress and problems in evaluating and validating alternative assays in toxicology, **Fd. Chem. Toxicol.**, 24:449-455.

Babich, H., Shopsis, C. and E. Borenfreund, 1986, Cadmium-nickel interactions towards a bacterium, filamentous fungi, and a cultured mammalian cell line, **Bull. Environ. Contam. Toxicol.**, 37:550-557.

Babich, H. and E. Borenfreund, 1987, *In vitro* cytotoxicity of organic pollutants to bluegill sunfish (BF-2) cells, **Environ. Res.**, 42:229-237.

Babich, H. and E. Borenfreund, 1987, Cultured fish cells for the ecotoxicity testing of organic pollutants, **Toxic. Assess.**, 2:119-133.

Babich, H. and E. Borenfreund, 1987, Structure-activity relationship (SAR) models established *in vitro* with the neutral red cytotoxicity assay, **Toxicol. In Vitro**, 1:3-9.

Babich, H. and E. Borenfreund, 1987, Polycyclic aromatic hydrocarbon *in vitro* cytotoxicity to bluegill BF-2 cells: mediation by S-9 microsomal fraction and temperature, **Toxicol. Lett.**, 36:107-116.

Borenfreund, E. and H. Babich, 1987, *In vitro* cytotoxicity of heavy metals, acrylamide, and organotin salts to neural cells and fibroblasts, **Cell Biol. Toxicol.**, 3:63-73.

Babich, H. and E. Borenfreund, 1987, Fathead minnow FHM cells for use in *in vitro* cytotoxicity assays of aquatic pollutants, **Ecotoxicol. Environ. Saf.**, 14:78-87.

Babich, H. and E. Borenfreund, 1987, Aquatic pollutants tested *in vitro* with early passage fish cells, **ATLA**, 15:116-122.

Committee on Multimedia Approaches to Pollution Control, 1987, **Multimedia Approaches to Pollution Control: A Symposium Proceedings**, Board on Environmental Studies and Toxicology, National Research Council, National Academy Press, Washington, DC (committee member).

Babich, H., Martin-Alguacil, N. and E. Borenfreund, 1987/1988, Mediating role of metabolic activation in *in vitro* cytotoxicity assays, **Molec. Toxicol.**, 1:363-372.

Babich, H. and E. Borenfreund, 1988, *In vitro* cytotoxicity of polychlorinated biphenyls (PCBs) and toluenes to cultured bluegill sunfish BF-2 cells, **In Aquatic Toxicology and Hazard Assessment**, 10th volume, ASTM STP 971, Adams, W.J., Chapman, G.A. and W.G. Landis (eds.), American Society for Testing and Materials, Philadelphia, PA, pp. 454-462.

Borenfreund, E. and H. Babich, 1988, Applications of the neutral red *in vitro* cytotoxicity assay using various cell types and toxicants, **In Alternatives to Animal Experiments in Risk Assessment, Symposium Proceedings**, Schering AG, Berlin, Federal Republic of Germany, pp. 101-110.

Babich, H. and E. Borenfreund, 1988, Structure-activity relationships for diorganotins, chlorinated benzenes, and chlorinated anilines established with bluegill sunfish BF-2 cells, **Fundam. Appl. Toxicol.**, 10:295-301.

Babich, H. and E. Borenfreund, 1988, Structure-activity relationships of inorganic metals, organometals, and organic test agents determined *in vitro* with the neutral red assay, *In Alternative Methods in Toxicology*, vol. 6, Goldberg, A.M. (ed.), Mary Ann Liebert Inc., Publ., NY, NY, pp. 121-130.

Borenfreund, E., Babich, H. and N. Martin-Alguacil, 1988, Comparisons of two *in vitro* cytotoxicity assays - the neutral red (NR) and the tetrazolium MTT tests, **Toxicol. In Vitro**, 2:1-6.

Babich, H., Sardana, M.K. and E. Borenfreund, 1988, Acute cytotoxicities of polynuclear aromatic hydrocarbons determined *in vitro* with the human liver tumor cell line, HepG2, **Cell Biol. Toxicol.**, 4: 295-309.

Babich, H., Martin-Alguacil, N. and E. Borenfreund, 1989, Arsenic-selenium interactions determined with cultured fish cells, **Toxicol. Lett.**, 45:157-164.

Goldstein, S.H. and H. Babich, 1989, Differential effects of arsenite and arsenate to *Drosophila melanogaster* in a combined adult/developmental toxicity assay, **Bull. Environ. Contam. Toxicol.**, 44:456-460.

Borenfreund, E., Babich, H. and N. Martin-Alguacil, 1989, Effect of methylazoxymethanol acetate on bluegill sunfish cell cultures *in vitro*, **Ecotoxicol. Environ. Saf.**, 17:297-307.

Babich, H., Martin-Alguacil, N. and E. Borenfreund, 1989, Comparisons of the cytotoxicities of dermatotoxicants to human keratinocytes and fibroblasts *in vitro*, *In Alternative Methods in Toxicology*, vol. 7, Goldberg, A.M. (ed.), Mary Ann Liebert Inc., Publ., NY, NY, pp. 153-167,

Babich, H., Martin-Alguacil, N. and E. Borenfreund, 1989, Use of the rainbow trout hepatoma cell line, RTH-149, in a cytotoxicity assay, **ATLA**, 17:67-71.

Babich, H. and E. Borenfreund, 1990, Cytotoxic effects of food additives and pharmaceuticals on cells in culture as determined with the neutral red assay, **J. Pharm. Sci.**, 79:592-594.

Babich, H., Goldstein, S.H. and E. Borenfreund, 1990, *In vitro* cyto- and genotoxicity of organomercurials to cells in culture, **Toxicol. Lett.**, 50:143-149.

Babich, H. and E. Borenfreund, 1990, *In vitro* cytotoxicities of inorganic lead and di- and trialkyl lead compounds to fish cells, **Bull. Environ. Contam. Toxicol.**, 44:456-460.

Borenfreund, E., Babich, H. and N. Martin-Alguacil, 1990, Rapid chemosensitivity assay with human normal and tumor cells *in vitro*, **In Vitro Cell. Develop. Biol.**, 5:91-100.

Babich, H. and E. Borenfreund, 1990, Applications of the neutral red cytotoxicity assay to *in vitro* toxicology, **ATLA**, 18:129-144.

Babich, H. and E. Borenfreund, 1991, Cytotoxicity and genotoxicity assays with cultured fish cells: a review, **Toxicol. In Vitro**, 5:91-100.

Martin-Alguacil, N., Babich, H., Rosenberg, D.W. and E. Borenfreund, 1991, *In vitro* response of the brown bullhead catfish cell line, BB, to aquatic pollutants, **Arch. Environ. Contam. Toxicol.**,20: 113-117.

Babich, H., Martin-Alguacil, N., Raul, C., Rosenberg, D.W. and E. Borenfreund, 1991, Response of human cell cultures to cytotoxicants requiring metabolic activation, **In Alternative Methods in Toxicology**, vol. 8, Goldberg , A.M.(ed.), Mary Ann Liebert, Inc., NY, NY, pp. 263-276.

Babich, H., Rosenberg, D.W. and E. Borenfreund, 1991, *In vitro* cytotoxicity studies with the fish hepatoma cell line, PLHC-1 (*Poeciliopsis lucida*), **Ecotoxicol. Environ. Saf.**, 21:327-336.

Babich, H. and E. Borenfreund, 1991, Cytotoxicity of T-2 and its metabolites determined with the neutral red cell viability assay, **Appl. Environ. Microbiol.**, 57:2101-2103.

Babich, H. and E. Borenfreund, 1992, Neutral red assay for toxicology *in vitro*, **In Methods in Toxicology and Pharmacology**, Watson, R.R. (ed.), CRC Press, Boca Raton, FL, pp. 237-251.

Babich, H. and K.D. Fox, 1992, Chemical pollutant toxicity determined with a fungal assay, **Amer. Biol. Teach.**, 54:488-490.

Babich, H. and E. Borenfreund, 1992, Cytotoxic and morphologic effects of phenylpropanolamine, caffeine, nicotine, and some of their metabolites studied *in vitro*, **Toxicol. In Vitro**, 6:493-502.

Borenfreund, E. and H. Babich, 1992, The neutral red cytotoxicity assay, **INVITTOX Protocol 64, The ERGAT/FRAME Data Bank of In Vitro Techniques in Toxicology**, INVITTOX, Nottingham, England, 21 pages.

Babich, H., Stern, A. and R Munday, 1992, *In vitro* cytotoxicity of methylated phenylenediamines, **Toxicol. Lett.**, 63:171-179.

Babich, H., Palace, M.R. and A. Stern, 1993, Oxidative stress in fish cells: *in vitro* studies, **Arch. Environ. Contam. Toxicol.**, 24:173-178.

Babich, H. and E. Borenfreund, 1993, Applications of the neutral red cytotoxicity assay to risk assessment of aquatic contaminants: an overview, *In **Environmental Toxicology and Risk Assessment, 1st Symposium***, Landis, W.G., Hughes, J.S. and M.A. Lewis (eds.), ASTM, Philadelphia, PA, pp. 215-229.

Borenfreund, E. and H. Babich, 1993, The neutral red (NR) assay, *In **Cell and Tissue Culture: Laboratory Procedures***, Griffith, J.B., Doyle, A. and D.G. Newell (eds.), Wiley and Sons, Ltd., England, pp.4B:7.1-7.7.

Babich, H. and A. Stern, 1993, *In vitro* cytotoxicities of 1,4-naphthoquinone and hydroxylated 1,4-naphthoquinones to replicating cells, ***J. Appl. Toxicol.***, 13:353-358.

Babich, H., Stern, A. and E. Borenfreund, 1993, Eugenol cytotoxicity evaluated with continuous cell lines, ***Toxicol. In Vitro***, 7:105-109.

National Research Council, 1993, **Pesticides in the Diets of Infants and Children**, National Academy Press, Washington, DC (Committee Member),

Babich, H., Stern, A. and R. Munday, 1993, *In vitro* cytotoxicity of 1,4-naphthoquinone derivatives to replicating cells, ***Toxicol. Lett.***, 69:69-75.

Babich, H., Borenfreund, E. and A. Stern, 1993, Comparative cytotoxicities of selected minor dietary nonnutrients with chemopreventive properties, ***Cancer Lett.***, 73:127-133.

Davis, D.L. and H. Babich, 1993, Natural anticarcinogens and mechanisms of cancer, *In **Hazardous Materials***, Corn, M. (ed.), Academic Press, Orlando, FL., pp. 463-474.

Babich, H., Palace, M.R., Borenfreund, E. and A. Stern, 1994, Naphthoquinone cytotoxicity to bluegill sunfish BF-2 cells, ***Arch. Environ. Contam. Toxicol.***, 27:8-13.

Babich, H., Markenson, D.F., Blau, L. and A. Stern, 1994, *In vitro* cytotoxicity of the chlorinated naphthoquinone, dichlone, to human endothelial ECV304 cells, ***Toxicol. In Vitro***, 8:1075-1081.

Sinensky, M.C., Leiser, A.L. and H. Babich, 1995, Oxidative stress aspects of the cytotoxicity of carbamide peroxide: *in vitro* studies, ***Toxicol. Lett.***, 75:101-109.

Babich, H., Wurzbarger, B.J., Rubin, Y.L., Sinensky, M.C., Borenfreund, E. and L. Blau, 1995, An *in vitro* study on the cytotoxicity of chlorhexidine digluconate to human gingival cells, ***Cell Biol. Toxicol.***, 11:79-88.

Babich, H., Zuckerbraun, H.L., Wurzbarger, B.J., Rubin, Y.L., Borenfreund, E. and L. Blau, 1996, Benzoyl peroxide cytotoxicity evaluated *in vitro* with the human keratinocyte cell line, RHEK-1, ***Toxicology***, 106:187-196.

- Babich, H., Zuckerbraun, H.L., Barber, I.B., Babich, S.B. and E. Borenfreund, 1996, Cytotoxicity of sanguinarine chloride to cultured human cells from oral tissue, **Pharmacol. Toxicol.**, 78:397-403.
- Babich, H., Segall, M.A. and K.D. Fox, 1997, The *Allium* test - a simple eucaryote genotoxicity assay, **Amer. Biol. Teach.**, 59:580-583.
- Babich, H. and J.P. Babich, 1997, Sodium lauryl sulfate and triclosan: *in vitro* cytotoxicity studies with gingival cells, **Toxicol. Lett.**, 91:189-196.
- Zuckerbraun, H.L., Babich, H., May, R.J. and M.C. Sinensky, 1998, Triclosan: cytotoxicity, mode of action, and induction of apoptosis in human gingival cells *in vitro*, **Eur. J. Oral Sci.**, 106:628-636.
- Babich, H., Zuckerbraun, H.L., Ricklis, A.S. and L. Blau, 1998, *In vitro* toxicity of sodium nitroprusside to human endothelial ECV304 cells, **Environ. Toxicol. Pharmacol.**, 5:135-144.
- Babich, H. and K.D. Fox, 1998, Induction of crown gall on carrot slices, **Amer. Biol. Teach.**, 60:445-447.
- Babich, H. and E. Borenfreund, 1998, Neutral red (NR) assay, **In Cell and Tissue Culture: Laboratory Procedures in Biotechnology**, Doyle, A. and J.B. Griffiths (eds.), Wiley and Sons, Ltd., England, Chapter 2.4, pp. 65-70.
- Babich, H., Zuckerbraun, H.L., Hirsch, S.T. and L. Blau, 1999, *In vitro* cytotoxicity of the nitric oxide donor, *S*-nitroso-*N*-acetyl-penicillamine, towards cells from human oral tissue, **Pharmacol. Toxicol.**, 84:218-225.
- Babich, H. and D.A. Tipton, 1999, *In vitro* cytotoxicity of bisphenol A to human gingival epithelial S-G cells, **In Vitro Molec. Toxicol.**, 12:233-244.
- Babich, H., Reisbaum, A.G. and H.L. Zuckerbraun, 2000, *In vitro* response of human gingival epithelial S-G cells to resveratrol, **Toxicol. Lett.**, 114:143-153.
- Babich, H. and H.L. Zuckerbraun, 2001, *In vitro* cytotoxicity of glyco-*S*-nitrosothiols: a novel class of nitric oxide donors, **Toxicol. In Vitro**, 15:181-190.
- Babich, H. and M.C. Sinensky, 2001, Indirect cytotoxicity of dental materials: A study with transwell inserts and the neutral red uptake assay, **ATLA**, 29:9-13.
- Babich, H. and D.A. Tipton, 2002, *In vitro* response of human gingival epithelioid S-G cells to minocycline, **Toxicol. In Vitro**, 16:11-21.

Babich, H., Sedletcaia, A., and B. Kenigsberg, 2002, *In vitro* cytotoxicity of protocatechuic acid to cultured human cells from oral tissue: involvement in oxidative stress, **Pharm. Toxicol.** 91:245-253.

Babich, H. and F. Visioli, 2003, *In vitro* cytotoxicity to human cells in culture of some phenolics from olive oil, **Il Farmaco** 58:403-407.

Tipton, D.A., Lyle, B., Babich, H., and M. Kh. Dabbous, 2003 *In vitro* cytotoxic and anti-inflammatory effects of myrrh oil on human gingival fibroblasts and epithelial cells, **Toxicol. In Vitro** 17:301-310.

Weisburg, J.H., Wesisman, D.B., Sedaghat, T. and H. Babich, 2004, *In vitro* cytotoxicity of epigallocatechin gallate (EGCG) and tea extracts to cancerous and normal cells from the human oral cavity, **Basic Clin. Pharmacol. Toxicol.**, 95:191-200.

Babich, H., Krupka, M.E., Nissim, H.A., and H.L. Zuckerbraun, 2005, Differential *in vitro* cytotoxicity of (-)-epicatechin gallate (ECG) to cancer and normal cells from the human oral cavity, **Toxicol. In Vitro** 19:231-242.

Babich, H., Gold, T., and R. Gold, 2005, Mediation of the *in vitro* cytotoxicity of green and black tea polyphenols by cobalt chloride, **Toxicol. Lett.**, 155:195-205.

Babich, H., Pinsky, S.M., Muskin, E.T., and H.L. Zuckerbraun, 2006, *In vitro* cytotoxicity of a theaflavin mixture from black tea to malignant, immortalized, and normal cells from the human oral cavity, **Toxicol. In Vitro** 20: 677-688

Babich, H., Selevan, A.R., and E.R. Ravkin, 2007, Glutathione as a mediator of the *in vitro* cytotoxicity of a green tea polyphenol extract, **Toxicol. Mech. Meth.** 17:357-369.

Babich, H., Zuckerbraun, H.L., and S.M. Weinerman, 2007, *In vitro* cytotoxicity of (-)-catechin gallate, a minor polyphenol in green tea, **Toxicol. Lett.** 171:171-180.

Schuck, A.G., Ausubel, M.B., Zuckerbraun, H.L., and Babich, H., 2008, Theaflavin-3,3'-digallate, a component of black tea: an inducer of oxidative stress and apoptosis, **Toxicol. In Vitro** 22:598-609.

Babich, H., Gottesman, R.T., Liebling, E.J., and A.G. Schuck, 2008, Theaflavin-3-gallate and theaflavin-3'-gallate, polyphenols in black tea with prooxidant properties, **Basic Clin. Pharmacol. Toxicol.** 103:66-74.

Babich, H., Liebling, E.J., Burger, R.F., Zuckerbraun, H.L., and A.G. Schuck, 2009, Choice of DMEM, formulated with or without pyruvate, plays an important role in assessing the *in vitro* cytotoxicity of oxidants and prooxidant nutraceuticals, **In Vitro Cell. Dev. Biol. - Animal** 45:226-233.

Babich, H., Akerman, N.J., Burekhovich, F., Zuckerbraun, H.L., and A.G. Schuck, 2009, *Ginkgo biloba* leaf extract induces oxidative stress in carcinoma HSC-2 cells, **Toxicol. In Vitro** 23:992-999.

Weisburg, J.H., Schuck, A.G., Silverman, M.S., Ovits-Levy, C.G., Solodokin, L.J., Zuckerbraun, H.L., and Babich, H., 2010, Pomegranate extract, a prooxidant with antiproliferative and proapoptotic activities preferentially towards carcinoma cells, **Anticancer Agts. Med. Chem.** 10:634-644.

Babich, H., Schuck, A.G., Weisburg, J.H., and H.L. Zuckerbraun, 2011, Research strategies in the study of the prooxidant nature of polyphenol nutraceuticals, **J. Toxicol.** vol. 2011, article ID 467305, 12 pages, doi:10.1155/2011/467305

Babich, H., Ickow, I.M., Weisburg, J.H., Zuckerbraun, H.L., and A.G. Schuck, 2012, Cranberry juice extract, a mild prooxidant with cytotoxic properties independent of reactive oxygen species, **Phyther. Res.** 26:1358-1365

Babich, H., Zuckerbraun, H.L., Schuck, A.G., and Weisburg, J.H. 2012, *In vitro* studies on the responses of healthy and cancerous cells derived from tissues of the human oral cavity to tea theaflavins and catechins, **In Tea in Health and Disease Prevention**, Preedy, V.R. (editor), Chapter 73, pp. 871-882, Elsevier/Academic Press, London, England.

Weisburg, J.H., Schuck, A.G., Reiss, S.E., Wolf, B.J., Fertel, S.R., Zuckerbraun, H.L., and Babich, H., 2013, Ellagic acid, a dietary polyphenol, selectively cytotoxic to HSC-2 carcinoma cells, **Anticancer Res.**, 33:1829-1836.

Schuck, A.G., Weisburg, J.H., Esan, H., Robin, E.R., Bersson, A.R., Wietschner, J.R., Lahasky, T., Zuckerbraun, H.L., and Babich, H., 2013, Cytotoxic and proapoptotic activities of gallic acid, an inducer of oxidative stress, to human oral cancer HSC-2 cells, **Oxid. Antioxid. Med. Sci.** 2:225-229.

Schuck, A.G., Weisburg, J.H., Greenbaum, R.E., Golfeiz, M.D., Segal, J.R., Weiss, R.A., Leibman, E.C., Zuckerbraun, H.L., and Babich, H., 2013, Selective cytotoxicity of grape seed proanthocyanidin extract to human oral carcinoma HSC-2 cells, **Cell Develop Biol.** 2:121-128.

Torah U'Madda Publications:

Babich, H. and D.M. Klein, 1997, A genetic analysis of the events leading to the birth of Dinah, **Derech HaTeva, a Journal of Torah and Science**, 1:4-8.

Babich, H., 1998, *V'ten tal u'matar livrachah*: thoughts on dew, **Derech HaTeva, a Journal of Torah and Science**, 2:33-40.

- Babich, H., 1999, Teaching science to the Torah-observant student, **Derech HaTeva, a Journal of Torah and Science**, 3:10-14.
- Babich, H., 2000, The Jewish people under the microscope, **Derech HaTeva, a Journal of Torah and Science**, 4: 31-36.
- Babich, H., 2001, *Noach* and the *Tayva*: some Torah, some biology, **Derech HaTeva, a Journal of Torah and Science**, 5:59-65.
- Babich, H., 2002, The *kof*, reverse evolution, and the *adnei ha-sadeh*, **Derech HaTeva, a Journal of Torah and Science**, 6:10-14.
- Babich, H., 2003, Strange, but true, **Derech HaTeva, a Journal of Torah and Science**, 7:47-51.
- Babich, H., 2004, Thirsty for Torah; thirsty for water, **Derech HaTeva, a Journal of Torah and Science**, 8:72-75.
- Babich, H., 2004, A *rimon* a day keeps the doctor away, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holidays issue).
- Babich, H., 2004, Olive oil, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Chanukah issue).
- Babich, H., 2005, Yonah: man against nature, **Derech HaTeva, a Journal of Torah and Science**, 9:10-14.
- Babich, H., 2005, Locusts: high in protein, low in carbs, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Pesach issue).
- Babich, H., 2005, Yom Kippur as viewed in the medical literature, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holidays issue).
- Babich, H., 2005, Elephants, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Chanukah issue)
- Babich, H., 2006, Wine: spiritual usage and health effects, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Pesach issue).
- Babich, H., 2006, Locusts and elephants, **Derech HaTeva, a Journal of Torah and Science**, 10:52-55.
- Babich, H., 2006, Dip the apple in the honey, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holidays issue)

Babich, H., 2006, Chanukah and kohanim, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Chanukah issue).

Babich, H., 2007, *K'lal Yisroel* in the medical literature: Purim-type studies, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover issue).

Babich, H., 2007, Blood or not blood: Does it really matter? **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover issue).

Babich, H., 2007, Wine, apples, and dates, **Derech HaTeva, a Journal of Torah and Science**, 11:57-60.

Babich, H., 2007, Subtle health benefits of being an observant Jew, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday issue).

Babich, H., 2007, Chanukah and potato latkes and other holiday-potato issues, **HaKovatz The Torah Journal of Agudath Israel of Madison** (Chanukah).

Babich, H., 2008, Blood, frogs, and lice, **Derech HaTeva, a Journal of Torah and Science**, 12:63-67. [reprinted in: *The Jewish World of Wonders*, 11:14-20, 2011].

Babich, H., 2008, Frogs and lice, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Passover issue).

Babich, H., 2008, Honey, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday issue).

Babich, H., 2008, Carobs, **HaKovatz The Torah Journal of Agudath Israel of Madison** (Chanukah/Tu B'Shevat issue).

Babich, H., 2009, *Maror* and matzah, **HaKovatz The Torah Journal of Agudath Israel of Madison** (Purim/Passover/Shevouth issue).

Babich, H., 2009, Biblical and Talmudic microbes, **Derech HaTeva, a Journal of Torah and Science**, 13:64-68.

Babich, H., 2010, Wild animals; fourth plague, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Passover issue).

Babich, H., 2010, Chanukah and *dudaim*, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday/Chanukah issue).

Babich, H., 2010, The *arba minim*, **Derech HaTeva, a Journal of Torah and Science** 14: 49-53.

Babich, H., 2011, Some physiological aspects of Queen Esther, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover/Shevouth issue).

Babich, H., 2011, Pestilence and boils, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover/Shevouth issue).

Babich, H., 2011, Spiders and their webs: their *halachos* and biology, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover/Shevouth issue).

Babich, H., 2011, Plagues 4 to 6: Wild animals, pestilence, and boils, **Derech HaTeva, a Journal of Torah and Science**, 15: 66-70.

Babich, H., 2011, Frankincense, myrrh, and balsam, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday/Chanukah issue).

Babich, H., 2012, Hail, lightning, and thunder: The 7th plague, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover/Shevouth issue).

Babich, H., 2012, Plagues 7 to 10, **Derech HaTeva, a Journal of Torah and Science**, 16: 96-91.

Babich, H., 2012, Food omens on Rosh HaShannah, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday/Chanukah issue).

Babich, H., 2012, *Basar b'chalav*, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday/Chanukah issue).

Babich, H., Bersson, A.R., and Brander, T.E., 2012, Jews and genes, **B'Or HaTorah**, 22:151-162.

Babich, H., 2013, Small fish, watermelon, cucumber, leek, onion, and garlic, **Derech HaTeva. A Journal of Torah and Science**, 17:49-53.

Babich, H., 2014, Biblical and Talmudic human genetics, **Derech HaTeva. a Journal of Torah and Science**, 18: 65-70.

Babich, H., 2014, Rosh Hashanah and mustard: the obvious connection, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday/Chanukah issue) and **YU Torah.Org**

Babich, H., 2015, *Parshas Shelcah*: Giants, spies, grasshoppers, and ants, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (Purim/Passover/Shevouth issue) and **YUTorah.Org**.

Babich, H., 2015, *Halacha* meets DNA fingerprinting, **Derech HaTeva. a Journal of Torah and Science**, 19:55-58.

Babich, H., 2015, *Achoo/Tzu gezunt*, **HaKovatz, The Torah Journal of Agudath Israel of Madison** (High holiday/Chanukah issue) and **YU Torah.Org**