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EDUCATION:

Ph.D., New York University, New York, NY, 2006

Field of study: Microbiology

Thesis dissertation: Direct binding of a regulatory RNA stem-loop to *E. coli* ribonuclease E

Adviser: Joel G. Belasco, Ph.D.

M.S., New York University, New York, NY, 2002

Field of study: Microbiology

B.A., Stern College for Women, Yeshiva University, New York, NY, 1999

Field of study: Biology

A.A., Stern College for Women, Yeshiva University, New York, NY, 1999

PROFESSIONAL EXPERIENCE:

Stern College, Yeshiva University

Clinical Associate Professor

New York, N.Y.

Fall 2017-current

Yeshiva College, Yeshiva University

Adjunct Professor

New York, N.Y.

Fall 2022

Stern College, Yeshiva University

*Jewish Foundation for Education of Women Fellowship Program
Program Director*

New York, N.Y.

Fall 2009-current

Stern College, Yeshiva University

Clinical Assistant Professor

New York, N.Y.

Fall 2007-Spring 2017

Stern College, Yeshiva University

Adjunct Instructor

New York, N.Y.

Fall 2006-Spring 2007

Laboratory, Department of Dermatology, New York University

Research lab assistant

New York, N.Y.

1999-2000

Stern College, Yeshiva University

Adjunct Instructor

New York, N.Y.

Fall 1999

PUBLICATIONS:

Musheyev, D., Miller, E., Birnbaum, N., Miller, E., Erbllich, S., Schuck, A., and Alayev, A. Inhibition of ERK signaling for treatment of ER α positive TNBC, PLOS One. 2022:3(4):480-496.

Alyssa G. Schuck, A.G., Weisburg, J.H., Esan, H., Robin, E.F., Bersson, A.R., Weitschner, J.R., Lahasky, T., Zuckerbraun, H.L., 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. 2:265-274.

Weisburg, J.H., Schuck, A.G., Reiss, S.E., Wolf, B.J., Fertel, S.R., Zuckerbraun, H.L., Babich, H. Ellagic acid, a dietary polyphenol, selectively cytotoxic to HSC-2 oral carcinoma cells, Anticancer Research. 2013: 1829-36.

Babich, H., Ickow, I.M., Weisburg, J.H., Zuckerbraun, H.L., Schuck, A.G., 2012, Cranberry juice extract, a mild prooxidant with cytotoxic properties independent of reactive oxygen species, Phytotherapy Research. 26: 1358-65

Babich, H., Schuck, A.G., Weisburg, J.H., Zuckerbraun, H.L., 2011, Research strategies in the study of the pro-oxidant nature of polyphenol nutraceuticals, Journal of Toxicology. 2011: 467305.

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

Babich, H., Ackerman, N.J., Burekhovich, F., Zuckerbraun, H.L., Schuck, A.G., 2009, *Gingko biloba* leaf extract induces oxidative stress in carcinoma HSC-2 cells. Toxicology In Vitro. 23: 992-9.

Babich, H., Liebling, E.J., Burger, R.F., Zuckerbraun, H.L., and Schuck, A.G., 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 Cellular and Developmental Biology. 45:226-33.

Schuck, A.G., Diwa, A. and Belasco, J.G., 2009, RNase E autoregulates its synthesis in *Escherichia coli* by binding directly to a stem-loop in the *rne* 5' untranslated region. Mol. Microbiol. 72:470-8.

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, Toxicology In Vitro. 22: 598-609.

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

POSTER PRESENTATIONS AND ABSTRACTS:

Schuck, A.G., The life and times of a female scientist, Manhattan High School for Girls, NY, NY, January 2019.

Dembitzer, N., Bushee, C., Ghelman, Y., Kandelshein, H., Lamm, D., Marmer, M., and Schuck, A. G., 2018, Anticarcinogenic and Anti-migratory Effects of Apple Extract on Human Squamous Oral Carcinoma Cells. *Women in Science* 14: 106-107.

Schuck, A.G., You Are What Your Genes Say...Or Are You?, Yeshiva University High School of Los Angeles, Los Angeles, CA, December 2018.

Schuck, A.G., Custom-Made Genes, Yeshiva University High School of Los Angeles, Los Angeles, CA, December 2018.

Piskun, H. and Schuck, A. G., 2016, The Blood Libel and Bacteria: Using Microbiology to Uncover an Incendiary Accusation Against the Jews. *Women in Science* 12: 146-147.

Friedman, A., Weitschner, D., Khakshour, D., Mond, S., Natelson, D., Dreyfus, N., Bitterman, E., and Schuck, A.G., 2015, The Cytotoxic and Pro-apoptotic Effects of Apple Extract on Human Squamous Oral Carcinoma Cells. *Women in Science* 11: 104.

Brooks, B., Tawil, A. J., Bitton, O., Garber, R., Herskovitz, Y., Yazdani, M., Wakschlag, A., Zibak, F., and Schuck, A. G., 2014, The Effect of Apple Extract on Cancer Cells of the Human Oral Cavity. *Women in Science* 10: 94-95.

Greenbaum, R. E., Golfeiz, M.D., Segal, J.R., Schuck, A.G., Weisburg, J.H., Zuckerbraun, H.L., and Babich, H., 2013, Antiproliferative effects of Grape Seed Extract to Cells Derived from the Human Oral Cavity. *Women in Science* 9: 117-119.

Robin, E.F., Wietschner, J.R., Weisburg, J.H., Zuckerbraun, H.L., and Schuck, A.G., 2012, Gallic acid, an inducer of apoptosis to human oral carcinoma HSC-2 cells, as mediated through oxidative stress. *Women in Science* 8: 142-143.

Esan, H., Bersson, A.R., Lahasky, T., Loshinsky, A.Y., Miller, S.H., Nathan, A.L., Schuck, A.G., Weisburg, J.H., and Babich, H., 2012, Autooxidation of Gallic Acid, a Nutraceutical in Pomegranate and Tea, Induces Oxidative Stress in Oral Carcinoma HSC-2 Cells. *Women in Science* 8: 96-98.

Reiss, S., Fertel, S., Schuck, A.G., Babich, H., Zuckerbraun, H., 2011, Antiproliferative and proapoptotic properties of ellagic acid to oral carcinoma HSC-2 cells. *Women in Science* 7.

Schuck, A.G., Cohen, S.S., Lerman, L.T., Haken, O., Weisburg, J.H., 2011, Pomegranate and olive fruit extracts, prooxidants with antiproliferative and proapoptotic activities toward HSC-2 carcinoma cells, *Society of In Vitro Biology* (poster presentation).

Lazaros, J., Hasten, E., Schuck, A.G., 2011, Pro-oxidant and pro-apoptotic activities of olive fruit extract toward oral carcinoma cells, Columbia University Undergraduate Research Symposium (poster presentation).

Lerman, L.T., Cohen, S.S., Schuck, A.G., Weisburg, J., Babich, H., 2010, Comparative responses of HSC-2 carcinoma cells to extracts from pomegranate juice and olive fruit: correlations with their prooxidant activities. *Women in Science* 6: 96-98.

Freilich, A., Canter, A., Haken, O., Schuck, A.G., 2010, Olive Extract's Pro-oxidative and Pro-apoptotic Effects on Cancer Cells. *YU Journal of Undergraduate Research*.

Solodokin, L., Canter, A., Frelich, A., Haken, O., Ovits Levy, C.G., Schuck, A.G., Babich, H., 2010, Anticarcinogenic and prooxidant properties of pomegranate juice extract and olive fruit extract. Columbia University Undergraduate Research Symposium (poster presentation).

Schuck, A.G., 2009, Bircas haChammah. *Derech HaTeva. Journal of Torah and Science* 13: 61-3.

Ruderman, E. Zack, E., and Schuck, A.G., 2009, Antitumorogenic and prooxidant activities of blueberry extract on human oral cancer cells. *Columbia University Undergraduate Science Journal*.

Haken, O., Krausz, E., and Schuck, A.G., 2009, Anticarcinogenic and pro-apoptotic properties of olive extract. *Women in Science* 5:93-94.

Ovits-Levy, C.G., Solodokin, L., Schuck, A.G., and Babich, H., 2009, Potential chemopreventive properties of a pomegranate juice extract. *Women in Science* 5:104-105.

Digilova, A., Raviv, T., and Schuck, A.G., 2008, Synergistic interactions between black tea theaflavins and chemotherapeutics in oral cancer cells. *Women in Science* 4: 85-86.

Grunsiel, N.J., Burekhovich, F., Schuck, A.G., Zuckerbraun, H.L., and Babich, H., 2008, Prooxidant properties of a *Ginkgo biloba* extract. *Women in Science* 4:95-96.

Katz, R., Ruderman, C., Zack, E., Zaghi, S., Schuck, A.G., Zuckerbraun, H.L., and Babich, H., 2008, Induction of apoptosis in human oral squamous carcinoma cells by black tea, blueberry and *Ginkgo biloba* extracts. *Women in Science* 4:101

Digilova, A., Raviv, T., and Schuck, A.G., 2008, Synergistic interactions between black tea theaflavins and chemotherapeutics in oral cancer cells. *Columbia University Undergraduate Science Journal*.

Ausubel, M.B., Schuck, A.G., Zuckerbraun, H.L., and Babich, H., 2007, Comparative cytotoxicity of theaflaving-3,3'-digallate, a component of black tea, to normal and malignant cells derived from the human oral cavity. *Women in Science* 3:34-35.

Gottesman, R.T., Liebling, E.J., Raviv, T., Schuck, A.G., and Babich, H. 2007, Theaflavin-3-gallate and theaflavin-3'-gallate, polyphenols in black tea with prooxidant properties. *Women in Science* 3:52-53.

AWARDS:

SCW Senior Class Professor Recognition Award for General Studies, May 2023
SCW Senior Class Outstanding Award for General Studies, May 2022
SCW Senior Class Professor Recognition Award for General Studies, 2020 and 2021
Lillian F. and William L. Silber Professor of the Year, May 2019
SCW Senior Class Professor Recognition Award for General Studies, May 2018
SCW Senior Class Professor Recognition Award for General Studies, May 2016
SCW Senior Class Professor Recognition Award for General Studies, May 2014
SCW Senior Class Professor Recognition Award for General Studies, May 2013

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

2011- 2013: Member, Society of In Vitro Biology

INVOLVEMENTS:

2019-present: Member, S. Daniel Abraham Honors Committee
2014-present: Faculty co-coordinator, SURGE (Student Undergraduate Research Group Exchange)
2009- present: Mentoring program director, JFEW Science Fellowship Program, Stern College for Women, Yeshiva University
2009-present: Mentor, S. Daniel Abraham Honors Program