



**Overview of Student Accomplishments – STEM Fields  
Departments of Biology, Chemistry/Biochemistry, Physics, Psychology, and  
Speech Pathology & Audiology**

**Students Attending Graduate/Professional Programs: 2016-2017**

<b>Graduate/Professional Program</b>	<b>Institutions</b>	<b>Number of Students</b>
Allopathic Medicine	Albert Einstein College of Medicine (7); SUNY Downstate; Technion; Temple; Ben Gurion; Jefferson; New York Medical; Hofstra; Univ. of Tennessee	18
Osteopathic Medicine	NYITCOM (formerly NYCOM); Touro	4
Medicine/Research (M.D./Ph.D)	Technion	1
Dental School	Rutgers; NYU; Touro	11
Veterinary Medicine	Cornell; Univ. of Minnesota	2
Biomedical Sciences (Ph.D.)	Tri-Institutional Program in Chemical Biology - The Rockefeller University; Weill Cornell Medical College; Memorial Sloan Kettering; Sue Golding (Einstein)	5
Clinical Psychology (Ph.D.)	Ferkauf Graduate School (YU)	1
Clinical Psychology (Psy.D.)	Pace; St. John's; Hofstra; Ferkauf Graduate School (YU); Kean; Rutgers	10
Physical Therapy (doctorate)	NYU; Hunter College	2
Physician Assistant	Touro; Pace; York (CUNY); Mercy	9
Occupational Therapy	NYU; Columbia; Seton Hall; Touro; Maryville University	7
Nutrition	Adelphi	1
Nursing	NYU; SUNY Downstate; Hunter (CUNY); Pace; College of New Rochelle; Santa Monica	22
Pharmacy	Creighton School of Pharmacy	1
Genetic Counseling (M.S.)	Sarah Lawrence; Mount Sinai Icahn School of Medicine; LIU	3
Public Health (MPH)	New York Medical College	1
Biomedical Engineering (M.S.)	New Jersey Institute of Technology	1
Computer Science Engineering	Columbia University	1
Chemical Engineering	Columbia University	1
Speech Pathology & Audiology	Touro; Lehman; St. John's; YU	9

Note: Some science graduates pursued other advanced degrees including Art Therapy, Education, & Law

**Five Year Summary: Academic Years 2012-2013 – 2016-2017**

<b>Graduate Program</b>	<b>Number of Students</b>
Allopathic Medicine	85 (of which 40 are at Einstein)
Osteopathic Medicine	22
Medicine/Research (M.D./Ph.D.)	1
Dental School	47
Podiatry School	1
Optometry School	4
Veterinary Medicine	2
Biomedical Science (Ph.D.)	9
Chemistry (Ph.D.)	1
Physical Therapy (doctorate)	35

Pharmacy (Pharm.D.)	11
Physician Assistant	36
Occupational Therapy	34
Nursing	106
Genetic Counseling	10
Nutrition	7
Psychology (various programs)	35 (1 Forensic; 5 M.S.; 12 Ph.D./PsyD.; 17 Clinical)
Speech Pathology/Audiology (data only for 2015-2017)	20 (11 Speech Language; 9 Speech Pathology/Audiology)
Engineering (various programs)	16 (Including 5 Biomedical; 2 Chemical; 1 Mechanical; 1 Computer Science)
Misc. M.S. Programs	12 (Including 2 Biomed. Science; 2 Public Health; 2 Prosthetics; 1 Biotechnology)
Summer research internships	278 (mainly in the US, but also Canada & Israel)
Peer-reviewed publications w/ SCW co-authors	47

### Publications in Peer-Reviewed Journals; 2016-2017 (SCW Student Names in BOLD)

**Berman, A.Y.**, Manna, S., **Schwartz, N.S.**, **Katz, Y.E.**, Sun, Y., Behrmann, C.A., Yu, J.J., Plas, D.R., Alayev, A., Holz, M.K., 2017, ERR $\alpha$  regulates the growth of triple-negative breast cancer cells via S6K1-dependent mechanism, Signal Transduct. Targeted Ther., Nature (in press).

Xiao, Y., Lucas, B., **Molcho, E.** and Vigodner, M., 2017, Cross-talk between sumoylation and phosphorylation in mouse spermatocytes, Biochem. Biophys. Res. Comm. 487:640-645.

**Ansel, A.**, Rosenzweig, J.P., Zisman, P.D., Melamed, M., and Gesundheit, 2017, Variation in gene expression in autism spectrum disorders: an extensive review of transcriptomic studies, Front. Neurosci., January 5<sup>th</sup>, <https://doi.org/10.3389/fnins.2016.00601>

Alayev, A., Salamon, R.S., **Schwartz, N.S.**, **Berman, A.Y.**, **Wiener, S.L.**, and Holz, M.K., 2017, Combination of rapamycin and resveratrol for treatment of bladder cancer. J. Cell Physiol., 232:436-446.

Alayev, A., Salamon, R.S., **Berger, S.M.**, **Schwartz, N.S.**, Cuesta, R., **Snyder, R.B.**, Holz, M.K., 2016, mTORC1 directly phosphorylates and activates ER $\alpha$  upon estrogen stimulation, Oncogene 35:3535-3543.

Alayev, A., Salamon, R.S., Manna, S., **Schwartz, N.S.**, **Berman, A.Y.**, and Holz, M.K., 2016, Estrogen induces RAD51C expression and localization to sites of DNA damage. Cell Cycle 15:3230-3239.

McFarren, A., Lopez, L., Williams, D.W., Veenstra, M., Bryan, R.A., **Goldsmith, A.**, Bruchertseifer, F., Zolla-Pazner, S., Gorny, M.K., Eugenin, E.A., Berman, J.W., and Dadachova, E., 2016, A fully human antibody to gp41 selectively eliminates HIV-infected cells that transmigrated across a model human blood brain barrier, AIDS, 30:563-572.

Manna, S., Bostner, J., Sun, Y., Miller, L.D., Alayev, A., **Schwartz, N.S.**, Lager, E., Fornander, T., Nordenskjöld, B., Yu, J.J., Stål, O., and Holz, M.K., 2016, ERR $\alpha$  is a marker of tamoxifen response and survival in triple-negative breast cancer. Clin. Cancer Res. 22: 1421-1431.

Pereira, A.C., Gray, J.D., Kogan, J.F., **Davidson, R.L.**, Rubin, T.G., Okamoto, M.,

Morrison, J.H., and McEwen, B.S., 2016, Age and Alzheimer's disease gene expression profiles reversed by the glutamate modulator riluzole, *Mol. Psychiat.* [published online ahead of print].

Xiao, Y., Pollack, D., **Andrusier, M.**, Levy, A., Callaway, M., Nieves, E., and Vigodner M., 2016, Identification of cell specific targets of sumoylation during mouse spermatogenesis, 151:149-166.

### **Abstracts/Presentations 2016-2017 (SCW Student Names in BOLD)**

Gerber, N., Dubrovsky, E., Lowe, S., Brodsky, A., Kurz, E., **Marmer, M.**, Chun, J., Schwartz, S., Shapiro, R., Axelrod, D., Guth, A., and Schnabel, F., 2017, DCIS on core-needle biopsy with no residual disease at surgery, SSO Annual Cancer Symposium, WA, March

**Levy L.**, Chernichovski T., Schwartz I., 2017, Male sex hormones regulate human endothelial nitric oxide synthase system through the modulation of cationic amino acid transporter-1, 253<sup>rd</sup> National Meeting of the American Chemical Society, San Francisco, CA, April.

**Rozner, S.** and DiLorenzo, T., 2017. Comfort with Sexuality in Orthodox Jewish Women. Poster presentation, Annual Meeting of the Society of Behavioral Medicine, San Diego, CA.

**Saffern, M.S.**, Abt, M.C., Pamer, E.G., 2017, Role of IL-17a in fecal microbiota transplant mediated clearance of *C. difficile* infection, 253<sup>rd</sup> National Meeting of the American Chemical Society, San Francisco, CA, April.

### **Summer 2017 Internships**

Elisa Alweis	Bar-Ilan University- YU-BIU Program
Alyssa (Michal) Auerbach	Stern College Biology Department (Dr. Marina Holz)
Tehilla Berger	Bar-Ilan University- YU-BIU Program
Rebecca Burack	Bar-Ilan University- YU-BIU Program
Chana Bushee	BloodCenter of Wisconsin
Shanee Carmel	NYU-Rusk Health Career Opportunity Program (Occupational Therapy)
Aleeza Dessau	Bar-Ilan University- YU-BIU Program
Chani Dubin	Bar-Ilan University- YU-BIU Program
Yael Eisenberg	Bar-Ilan University- YU-BIU Program
Abby Epstein	Bar-Ilan University- YU-BIU Program
Jennifer Gardner	Bar-Ilan University- YU-BIU Program
Ariella Hecht	NYU-Rusk Health Career Opportunity Program (Nursing)
Bracha Jachter	Kidney transplant Program, Montefiore Medical Center
Lea Lefkowitz	Bar-Ilan University- YU-BIU Program
Tova Lejtman	NYU Fertility Center (Yael Gun-Kramer, Senior Embryologist)
Judy Leserman	Bar-Ilan University- YU-BIU Program
Lior Levy	The Hospital for Sick Children (Toronto): University of Toronto Institute of Medical Science Summer Undergraduate Research Program
Tali Kluk	Northwestern University (Dr. Harris Perlman, Chief of Rheumatology)
Aderet Liss	Boston Children's Hospital (Nephrology Lab)
Miriam Liebling	SURP, Albert Einstein College of Medicine (Dr. Jessica Mar)
Tzivia Linfield	University of Maryland Medical School
Yonina Loskove	Albert Einstein College of Medicine (Dr. Bernice Morrow)
Yael Jessica Mayer	CUNY Summer Undergraduate Research Program (Neuroscience)

Jasmine Naim	Bar-Ilan University- YU-BIU Program
Rachel Nass	Stony Brook Univ. (Dr. Jonathan Sokolov)
Tzip Roffe	Bar-Ilan University- YU-BIU Program
Miriam Rosen	Bar-Ilan University- YU-BIU Program
Rivka Sahalnick	NYU-Rusk Health Career Opportunity Program (Physician Assistant)
Talia Sanieoff	Bar-Ilan University- YU-BIU Program
Emily Schwartz	Bar-Ilan University- YU-BIU Program
Rachel Somorov	Kidney transplant Program, Montefiore Medical Center
Malka (Racheli) Topp	Bar-Ilan University- YU-BIU Program
Rachel Weil	Albert Einstein College of Medicine (Dr. Theresa Bowman)
Rebecca Weitz	SERC Scholar; Albert Einstein College of Medicine

### Awards

Lior Levy	In-house scientific poster presentation contest winner
Miriam Saffern	In-house scientific poster presentation contest winner
Yael Eisenberg	Kressel Scholarship for the 2017-2018 Academic Year (Math)
Yardena Katz	Kressel Scholarship for the 2017-2018 Academic Year (Biology)
Rebecca Weitz	SERC Scholar (Albert Einstein College of Medicine)

SCW Chemistry Club (Co-Presidents: Jordana Gross and Michelle Shakib): Commendable Chapter Award, American Chemical Society (ACS)

100% medical and dental school acceptance for SCW applicants

### Opportunities for Science Majors

- Wide range of course offerings in the sciences
- Fully-equipped state-of-the-art teaching laboratories; on campus laboratory research opportunities
- Assistance in placement in off-campus research laboratories
- Pre-health advisers for careers in medicine, dentistry, optometry, podiatry, veterinary medicine, physical therapy, physician assistant, occupational therapy, nursing, nutrition, pharmacy, genetic counseling, speech pathology/audiology, and engineering
- Science writing opportunities - science and tech section of the college newspaper, *The Observer*; *Derech HaTeva, a Journal of Torah and Science*; publication of abstracts in *Women in Science*
- Develop leadership skills through participation in student-run clubs including, but not limited to:
  - Biology Club
  - Chemistry Club
  - Project Start
  - Pre-Med Club
  - Pre-Dent Club
  - Physical and Occupational Therapy Clubs
  - Physician Assistant Club
  - Nutrition Club
  - Nursing Club
  - Neuroscience Society
  - Public Health Club
  - Genetics Club
  - Medical Ethics Society
- Scientific poster presentation contest and student presentations at monthly faculty-student meetings of SURGE (Student Undergraduate Research Group Exchange)
- *Torah U'Madda* presentations and seminars