

SCIENCE HISTORY INSTITUTE

JUDITH SUMMERS-GATES

Scientists with Disabilities

Transcript of an Interview
Conducted by

Jessica L. Martucci and Lee Sullivan Berry

at

Science History Institute
Philadelphia, Pennsylvania

on

20 January and 6 February 2017

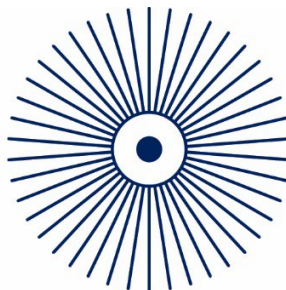
(With Subsequent Corrections and Additions)

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Judith Summers-Gates, interview by Jessica Martucci and Lee Sullivan Berry at Science History Institute, Philadelphia, Pennsylvania, 20 January and 6 February 2017 (Philadelphia: Science History Institute, Oral History Transcript # 0971).

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Judith Summers-Gates

1958 Born in Hazelton, Pennsylvania, on 1 April

Education

1989 AS, Community College of Philadelphia (Double degree)

1990 BS, Drexel University, Unified Science (Biology, Chemistry, Physics)

Professional Experience

1980-1982 United States Department of Agriculture
Physical Science Technician

1983-1988 United States Department of Defense, Personnel Support Center
Physical Science Technician

1991-1992 Food and Drug Administration
Physical Science Technician
1993-2014 Analytical Chemist
2004-2006 Philadelphia District Consumer Complaint Coordinator
2004-2014 Philadelphia District Public Affairs Specialist
2004-2014 Philadelphia District Coordinator for State Programs
2004-2014 District Training Officer, New Hire Coordinator
2004-2014 Program Analyst/Assistant to the Philadelphia District Director

1997-2017 Service in American Chemical Society National Office
Committee on Chemists with Disabilities
2000-2005, 2009-2011 Chair
2009-2010 Presidential Taskforce on Implementing the ACS Diversity
Reports
2009 Program Review Advisory Group (PRAG)

1997-present Service in American Chemical Society Offices
Member
2004-2016 Philadelphia Section Councilor/ Alternate Councilor
2010 Section Chair
2002-present Board Member

2004-2015	Publications Committee
2006-2015	National Chemistry Week Coordinator
2005-2014	PAGES Program for Young Girls/Chemist in the Classroom Presenter
2004	National Meeting Hospitality Committee
2004-2014	ACS Peer Mentor
2002-2014	Mentor ACS Scholar/Project Seed Student; ACS Speakers Bureau presentations

Honors

1979-present	American Association for the Advancement of Science Resource Directory of Scientists and Engineers with Disabilities
2000	Food and Drug Administration National Award for EEO Activities
2005	National Louis Braille Award for Service to The Visually Impaired
2007	Food and Drug Administration Commissioner's Citation
2012	George Washington Carver Award for dedication and creativity in the advancement of Science for all humanity
2012	Federal Executive Board Gold Medal 2012 for outstanding customer service to the public
2014	ACS Fellow Award for outstanding achievements in and contributions to Science, the Profession and the Society

ABSTRACT

Judith Summers-Gates was born in Hazelton, Pennsylvania in 1958 and grew up in Philadelphia, Pennsylvania. Her mother was a registered nurse. His father was a hardwood floor installer. She had a younger sister and brother. She was born premature and was the only survivor of the ten premature babies in her nursery. The excessive oxygen in the incubator caused her retinopathy of prematurity, and she became low vision. Due to a bleeding disorder, she was not allowed to engage in physical activities. She went to a mainstream public school with no accommodation. Nonetheless, she was an active child who was engrossed in science-related activities. She enjoyed reading encyclopedia entries, growing hydroponic lettuce, building rockets, collecting rocks, earning a bird-watching badge during a Girl Scout activity, and using a chemistry set. Her mother died of cancer when she was seventeen, and she experienced her first episode of depression. After graduating high school, she first went to nearby Holy Family College with a scholarship. Later, she enrolled at Drexel University, earning a BS in Unified Science (a combination of Chemistry, Biology, and Physics) in 1990. During Drexel's co-op program, she occasionally experienced double discrimination of being a woman and having a disability, but she learned to push back. During her co-op program at the United States Department of Agriculture (USDA), she acquired assistive tools and technologies through the Blindness and Visual Services (BVS). Also, she mentored other blind scientists. During her undergraduate education, the United States Department of Defense (DOD) hired her as a full-time physical science technician, and she tested textiles used in the military. Because she did not hesitate to be upfront with contractors with unsatisfactory products, she gained the moniker of "The contract killer." Due to undiagnosed multiple sclerosis (MS) symptoms, she needed to leave the DOD. While finishing her degree, the United States Food and Drug Administration (FDA) hired her, and she became a physical science technician, primarily analyzing color additives. She also worked on making X-rays and similar types of tests, such as mammography, accessible for disabled people by creating a national database. She also promoted the rights of people with disabilities through her service work. For example, she worked with Virginia Stern at the American Association for the Advancement of Science (AAAS) to create a directory of disabled people in STEM. After completing the FDA's Leadership Management Development Program, she trained new hires, mentoring scientists with diverse backgrounds who otherwise would have been discouraged from pursuing science. She retired from the FDA in 2014.

INTERVIEWER

Jessica L. Martucci earned her master's degree in bioethics and her PhD in the history and sociology of science at the University of Pennsylvania. She is the author of numerous scholarly and popular works, including her book *Back to the Breast: Natural Motherhood and Breastfeeding America* (University of Chicago Press, 2015). She was the lead researcher behind the Science History Institute's Science and Disability Project, which is part of her broader interest in understanding the mechanisms and effects of exclusion and inclusion in science, medicine, and public history.

Lee Sullivan Berry earned a master's degree in medieval studies from the University of Notre Dame, and a bachelor of arts degree in religious studies from the University of Pennsylvania. As a staff member in the Center for Oral History, Berry conducts background research and oral-history interviews, edits transcripts of completed interviews, and coordinates with interviewers and interviewees to finalize transcripts. She was the lead interviewer for the REACH Ambler project and has presented her work at meetings of the American Society for Environmental History and Oral History in the Mid-Atlantic Region.

ABOUT THIS TRANSCRIPT

This interview was conducted as part of the Science and Disability project, which documents the lives and contributions of people with disabilities who work or pursue degrees in STEM fields. Participants include individuals from all stages in the STEM (science, technology, engineering, and medicine) pipeline, as well as those who have left the field. The interviews in this collection explore how physical and intellectual spaces welcome or exclude people with disabilities; how scientific cultures and identities intersect with those of the diverse disability community; and what environmental, institutional, and professional barriers people with disabilities face.

The Center for Oral History, Science History Institute, is committed both to preserving the recording of each oral history interview in our collection and to enhancing research use of the interviews by preparing carefully edited transcripts of those recordings. The preparation of interview transcripts begins with the creation of a verbatim typescript of the recording and proceeds through review and editing by staff of the Center; interviewees also review the typescript and can request additions, deletions, or that sections be sealed for specified periods of time. We have established guidelines to help us maintain fidelity to the language and meaning of each recorded interview while making minor editorial adjustments for clarity and readability. Wherever possible, we supply the full names of people, organizations, or geographical locations mentioned during the interview. We add footnotes to the transcript to provide full citations for any publications that are discussed, to point to extant oral history interviews, and to clear up misstatements or provide context for ambiguous references in the transcript. We use brackets to indicate the addition of material that was not in the audio, and bracketed ellipses to indicate the deletion of recorded material. The transcript also includes time stamps at five-minute intervals. We omit without noting most instances of verbal crutches and all instances of nonlexical utterances. We also make small grammatical corrections where necessary to communicate interview participants' meaning. Finally, staff of the Center create the abstract, chronology, and table of contents. With the availability of online full-text searching of our transcripts, the Center for Oral History opted to discontinue the practice of preparing a back-of-the-book index for each oral history transcript in 2020. **The Science History Institute is committed to the responsible presentation of the history of science by addressing evidence of inequality and oppression as well as the subsequent silences in our collections. To that end, we recognize there may be language in our oral history collection that is outdated, offensive, or harmful, such as, but not limited to the following: racist, sexist, Eurocentric, ableist, and/or homophobic language or depictions.**

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Holy Family College — Drexel University and United States Department of Agriculture	17
<p>Due to financial and other hardships caused by mother’s death, went to nearby Holy Family College with scholarship. Had accommodations for the first time through the School District of Philadelphia. Began to experience undiagnosed, early symptoms of multiple sclerosis (MS). Enrolled at Drexel University to study chemistry. Went to four Drexel’s co-op programs. During some co-op interviews, experienced double discrimination of being woman and disabled but learned to push back. Preferred research over industry and stayed at the United States Department of Agriculture (USDA) for the remainder of the co-op program as physical science technician. Advocated for herself to have adaptive tools and technologies via the Blindness and Visual Services (BVS) such as telescopes, surgical telemicroscopes, CCTV systems, and white cane. Mentored other blind and low-vision scientists through the BVS. Met husband at the USDA.</p>	
United States Department of Defense, Personal Support Center	41
<p>While finishing bachelor’s degree at Drexel University, employed full-time as physical science technician at the Department of Defense (DOD) through the Pennsylvania Bureau of Blindness and Visual Services’ (BVS) vocational rehabilitation program. Tested textiles used in the military, Meals Ready-to-eat, and NASA’s space shuttle insulation tiles and spacesuits. Gained the moniker of “The Contract Killer” with suppliers with unsatisfactory products. Helped disabled coworkers acquire accommodations. Had more undiagnosed symptoms of MS. Left the position due to decreasing fine motor skills.</p>	
Drexel University — United States Food and Drug Administration	51
<p>After leaving the DOD, went to the Community College of Philadelphia. Earned two associate degrees before fully going back to Drexel University on a full-time basis.</p>	

Graduated from Drexel University in 1990. Had MS diagnosis after graduation. Came to the United States Food and Drug Administration (FDA) as a technician in 1991 and became physical science technician in 1993 after completing additional credits. Active in advocacy work at local, national, and professional levels. Invited to the Americans with Disabilities Act's signing ceremony but could not attend.

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Worked on accessibility-related systemic change at the FDA; made mammography and other x-ray types of testing more accessible for disabled people. Did service work with the Mayor's Commission on People with Disabilities, the education subcommittee, and SEPTA. Went to K-12 schools for "chemist in the classroom program" demonstrations. Worked with Virginia Stern at the American Association for the Advancement of Science (AAAS) to create directory for scientists with disabilities. Realized having tetrachromacy and worked on color additives at the FDA's Philadelphia District Laboratory. Also learned she had dyscalculia. The work focus shifted to analyses of bulk pharmaceuticals. Worked on implementing accessibility in federal agencies. Selected as FDA's Leadership Development Program, management training program to develop skills and sensitivities to work with a diverse range of investigators and demographic groups. After completing the Program, became a trainer for new hires.

Other service activities and awards 96

Activities at the American Chemical Society's (ACS) Philadelphia Local Section, including the Committee on Chemists with Disabilities (CWD). Worked with other ACS minority committees. Served as a judge at science fairs. Explains her diagnoses of depression since adolescence and, more recently, bipolar II disorder. Role of her husband in mental health. Discusses challenges of scientists with mental disabilities and their workplace accommodation. Won the Louis Braille Award. Retired from the FDA in 2014. Discusses her lifelong passion for science and achievement in protecting the public through her FDA work and in mentoring younger scientists, including scientists with disabilities or people who otherwise would have been discouraged from pursuing science.