

Advisor: **Dr. Andrea Baccarelli**

Project: Assess the effect of phthalate exposure on male infertility using mitochondrial lesions as a biomarker of phthalate exposure and DNA damage, quality control assays

Techniques: PCR, PicoGreen dsDNA quantification assay, DNA lesions quantification assay, gel electrophoresis, data analysis in R

2015-2016

Research Associate, Environmental Health Dept., Boston University School of Public Health

Advisors: **Dr. Roberta F. White**, Dr. Kimberly Sullivan

Research Areas: Gulf War Illness, clinical research; Identify plasma biomarkers of Gulf War Illness using “omic” technology, assess efficacy of intranasal insulin on memory and attention functioning, mood, and overall physical health in Gulf War veterans

Techniques: Various neuropsychological assays for cognitive function including CPT3, COWAT (FAS), Finger tapping test, Grooved pegboard test, Block design, Trail-making, CVLT-II, and TOMM

2014-2015

Research Assistant, Neurology Dept., Biogen

Advisors: **Dr. Marion Wittmann, Dr. Brandon Farley**

Research Areas: Assay optimization to assess clinical onset of disease in amyotrophic lateral sclerosis (ALS) transgenic mouse and demyelination in the optic pathway of rats after injection of a neurotoxic/gliotoxic compound

Techniques: EEG/EMG recordings, compound muscle action potential (CMAP) recordings, visual evoked potentials, behavioral measurements (rotarod, grip strength), data analysis

2013-2014

Research Assistant, Neurobiology Dept., Harvard Medical School

Advisors: **Dr. John Maunsell, Dr. Mark Histed**

Research Areas: Visual and auditory perception, neural coding

Techniques: Optogenetics in mice, stereotaxic surgery, *in vivo* electrophysiology, single-unit neural recording, operant conditioning, data analysis using MATLAB

2011-2013

Undergraduate volunteer, Psychology Dept., Northeastern University

Advisors: **Dr. Richard Melloni, Jr.**, Dr. Thomas Morrison

Research Areas: Anabolic-androgenic steroids, offensive aggression, affective behaviors (e.g. anxiety), actions of arginine vasopressin and dopamine in lateral anterior hypothalamus

Techniques: Rodent behavioral tests (elevated plus maze, resident-intruder paradigm, black/white box) and scoring, stereotaxic surgery, cardiac perfusions, brain extractions, tissue cross-sectioning with microtome, slide mounting and coverslipping, immunohistochemistry

Grants and Fellowships

2017-2018 National Institute of Environmental Health Sciences Pre-doctoral Training Grant (2T32ES007322-16); Principal Investigator: Andrea Baccarelli