Jacob Spector

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(530) 304-7508

Work Experience

Boston Children's Hospital
Physician Informaticist   07/21 – current

Participated in institutional and laboratory informatics projects and oversight, involved with Epic EHR evaluation and implementation

Education

University of California San Francisco
Molecular Genetic Pathology Fellowship   07/20 – 06/21

Massachusetts General Hospital / Brigham and Women's Hospital
Clinical Informatics Fellowship   07/19 – 06/20

University of California San Francisco
Clinical Pathology Residency   07/16 – 06/19

University of Illinois at Chicago
M.D.   08/12 – 05/16

University of California Davis
B.S. in Genetics   09/07 – 06/11

Licensure

Massachusetts Medical License (#288278)   2021 – current

California Medical License (#A155458)   2016 – current

Massachusetts Training Medical License   2019 – 2020

Certifications

 Board Certified in **Clinical Informatics** by the American Board of Pathology / American Board of Preventive Medicine   2021

 Board Certified in **Molecular Genetic Pathology** by the American Board of Pathology   2021

 Board Certified in **Clinical Pathology** by the American Board of Pathology   2019

 Epic Physician Builder   2019

Research Experience / Informatics Projects

Boston Children's Hospital
Non-invasive Molecular Markers of Endometriosis   10/23 – ongoing

Led a research project related to analyzing blood samples of endometriosis patients to look for diagnostic markers

University of California San Francisco
Digital Hematopathology   10/20 – 11/21

Worked with hematopathologists to validate scanned peripheral blood smears for diagnostic purposes

Massachusetts General Hospital
Red Blood Cell Molecular Database   07/19 – 06/20

Worked with a member of the International Society of Blood Transfusion to develop a web application for curating red blood cell molecular data

University of California San Francisco
Clinical Data Visualization Software   07/18 – 06/19

Part of a team building a software tool that uses data from Epic and other clinical databases to display and visualize specialty relevant patient information

University of California San Francisco
Transfusion Medicine Research   01/17 – 06/19

Built software to help analyze blood product utilization using data taken from the lab information system

Independent Project
Pathology Education Software   01/17 - ongoing

Designed and built software platform for pathology education which utilizes whole slide images and simulates pathology workflows

University of California San Francisco
Genetics Research - <ClinTAD.com>   12/16 – ongoing

Built web tool that can assist with interpreting the clinical significance of copy number variants in the context of topologically associated domains

University of Illinois at Chicago
Hepatocellular Carcinoma Research   04/14 – 01/15

Performed research identifying histologic criteria that can be used to distinguish hepatocellular carcinoma from normal, cirrhotic, and dysplastic liver tissue using the Vectra Automated Quantitative Pathology Imaging System

University of California Davis, Davis, CA
Research Assistant   01/09 – 07/12

Participated in research projects related to meiotic checkpoints in yeast (*S. cerevisiae*)

Publications

(Preprint) Goldgof G, Sun S, Van Cleave J, [et al, including **Spector J**]. **DeepHeme: A generalizable, bone marrow classifier with hematopathologist-level performance.** bioRxiv. Feb 2023. doi: 10.1101/2023.02.20.528987

Arvisais-Anhalt S, Ravi A, Weia B, [et al, including **Spector J**]. **Paging the Clinical Informatics Community: Respond STAT to Dobbs v Jackson's Women's Health Organization**. Appl Clin Inform. Dec 2022. doi: 10.1055/a-2000-7590

Spector J, Wiita A. **A guide to using ClinTAD for interpretation of clinical copy number variants.** Current Protocols in Human Genetics. Current Protocols in Human Genetics. Dec 2020. doi: 10.1002/cphg.106

Spector J, Wiita A. **ClinTAD: A tool for copy number variant interpretation in the context of topologically associated domains.** Journal of Human Genetics. May 2019. doi: 10.1038/s10038-019-0573-9

Grants and Funding

Principal Investigator: Jacob Spector. **Boston Children's Hospital Pilot Grant: "Non-invasive Molecular Markers of Endometriosis**", 2023, $10,000.

Principal Investigator: Arun Wiita. Role: Co-Investigator. **NICHD: "ClinTAD: A Tool for Improving Clinical CNV Interpretation" (1R03HD105804-01)**, 08/2021 - 07/2023, $80,750.

Principal Investigator: Jacob Spector. **UCSF Departmental Funding: "Pathy: A Platform for Pathology Education**", 2021, $5,000.

Presentations

AACC Annual Scientific Meeting. **Python in the Lab**. July 25, 2023

Spector J, Schleimer E, Rankin K, Bove R, Sanders S. **Patient Timeline: A Tool For Visualization of Objective Clinical Data.** Association of Pathology Informatics, Pathology Informatics Summit 2019.

Spector J, Wiita A**, ClinTAD: A tool for copy number variant interpretation in the context of topologically associated domains.** American Society of Human Genetics Meeting 2018

Spector J, Bakhtary S, Moayeri M, Nambiar A, Thorsen R, Tabacu AM, Nedelcu E**, Novel Programming Tool to Assess Blood Utilization of RBC Transfusions.** UCSF Health Improvement Symposium 2018

UCSF Pathology Department Grand Rounds. **Young Blood**. November 9, 2017

UCSF Pathology Department Grand Rounds. **Topologically Associated Domains**. February 9, 2017

UCSF Pathology Department Grand Rounds. **Telomeres, Aging, and Lifestyle**. October 13, 2016

Spector J, Xie H, Behm F, Guzman G**, Spectral Imaging Distinction of Hepatocellular Carcinoma From Dysplastic, Non-dysplastic, and Normal Hepatocytes Using Nuclear Cytoplasmic Ratio and Level of FOXM1 Immunoexpression.** The Pathologists' Meeting 2015

Teaching

ClinTAD Grant Related Mentoring	10/21 – current

Mentored undergraduate student on genetics, programming, and web development

Clinical Informatics Review	07/20 – 12/20

Gave presentations reviewing several topics for Harvard hospitals clinical informatics fellows

UCSF Medical School	09/17 – 11/17

Led small group discussions related to blood and circulation for first year medical students

Committee Appointments

UCSF Utilization Committee	09/16 – 06/18

Participated in committee which reviews and discusses hospital resource utilization and related projects at UCSF

Volunteering and Community Service

Student Run Free Clinic   2014 - 2015
Examined, assessed, and made plans for patients at the Student Run Free Clinic, a free clinic for underserved populations

Working Bikes   2015
Built bikes for a non-profit bike shop that provides bikes to developing countries