

## **Biosketch: David Daniel Cox, Ph.D.**

### **1 Education**

Harvard University, Cambridge MA	Biology and Psychology	B.A.	2000
Massachusetts Institute of Technology	Neuroscience	Ph.D.	2007

### **2 Appointments**

7/12 – present	Assistant Professor, Dept. of Molecular and Cellular Biology & Center for Brain Science, Harvard University
9/07 – 7/12	Rowland Fellow, The Rowland Institute at Harvard, School of Engineering and Applied Sciences, Harvard

### **3 Publications**

#### **3.1 Five most closely related to proposal project**

1. Vig N, Dorr M, Cox DD (2012) “Space-Variant Descriptor Sampling for Action Recognition Based On Saliency and Eye Movements” European Conference on Computer Vision (ECCV 2012)
2. Chiachia G, Pinto N, Schwartz W, Rocha R, Cox DD (2012) “Person-Specific Subspace Analysis for Unconstrained Familiar Face Identification” British Machine Vision Conference (BMVC 2012)
3. Pinto N, Stone Z, Zickler T, Cox DD (2011) “Scaling-up Biologically-Inspired Computer Vision: A Case-Study on Facebook.” IEEE Computer Vision and Pattern Recognition, Workshop on Biologically Consistent Vision (WBCV 2011)
4. Pinto N, Cox DD (2011) “Beyond Simple Features: A Large-Scale Feature Search Approach to Unconstrained Face Recognition.” IEEE Automatic Face and Gesture Recognition (FG 2011)
5. Pinto N, DiCarlo JJ, Cox DD (2009) “How far can you get with a modern face recognition test set using only simple features?” IEEE Computer Vision and Pattern Recognition (CVPR 2009)

#### **3.2 Five other significant publications**

1. Bergstra J, Pinto N, Cox DD (2012) “Machine Learning for Predictive Auto-Tuning with Boosted Regression Trees.” Innovative Parallel Computing (InPar 2012)
2. Pinto N, Cox DD (2011) “GPU Metaprogramming: A Case Study in Biologically-Inspired Computer Vision.” in GPU Computing Gems, Jade Edition , published by Morgan Kaufmann Publishers
3. Pinto N, Doukhan D, DiCarlo JJ, Cox DD (2009) “A High-Throughput Screening Approach to Discovering Good Forms of Biologically Inspired Visual Representation.” PLoS Computational Biology 5(11)

4. Cox DD, Meier P, Oertelt N, DiCarlo JJ (2005) “‘Breaking’ Position-invariant Object Recognition.” *Nature Neuroscience* 8 (9): 1145-1147
5. DiCarlo JJ and Cox DD (2007) “Untangling Invariant Object Recognition.” *Trends in Cognitive Sciences* 11: 333-341

## 4 Synergistic Activities

- Faculty Adviser, REU Summer Research Program (2008-11), School of Engineering and Applied Sciences, Harvard University
- Organizing Committee, Workshop on Biologically Consistent Vision at IEEE Computer Vision and Pattern Recognition (CVPR 2011)
- Program Committee, Computational Systems Neuroscience (CoSyNe) Meeting, 2011
- Program Committee, Workshop on Applications of Computer Vision (WACV), 2011
- Editorial Board, *Frontiers in Perceptual Science*

## 5 Collaborators and Other Affiliations

### 5.1 Collaborators

James J. DiCarlo (MIT), Joshua Vogelstein (JHU), Todd Zickler (Harvard), HT Kung (Harvard), Jeff Lichtman (Harvard), Terry Boulton (UCCS), Anderson Rocha, William Schwartz and Alexandre Falco (University of Campinas, Brazil), James Bergstra (University of Waterloo, Canada), Davide Zoccolan (SISSA, Italy).

### 5.2 Graduate and Postdoctoral Advisors

*Graduate Advisor:* James J. DiCarlo (MIT)

### 5.3 Thesis Advisor and Postgraduate-Scholar Sponsor

*Former Postdocs:* Davide Zoccolan (now Assistant Prof. at SISSA, Trieste, Italy)  
 Vinay Sriram (now Dir. of Engineering at IPACs Australia, Ltd)  
 James Bergstra (now NSERC fellow at University of Waterloo)  
 Nicolas Pinto (now co-founder of new startup in Silicon Valley)  
 Nicolas Poilvert (now co-founder of new startup in Silicon Valley)

*Current Postdocs:* Walter Scheirer  
 Brett Graham  
 Eleonora Vig

Total Postdocs Advised: 8