



Two-year post-doctoral position at the Icelandic Vision Lab and EPFL, Lausanne.

Project title: Natural Image Statistics in Visual Attention Tasks

The **Icelandic Vision Lab** (www.visionlab.is) advertises a 2-year post-doc position, fully funded by a grant from the *Research Fund* of the University of Iceland. The successful candidate will work under the supervision of Professor **Árni Kristjánsson** (*University of Iceland*) and Dr. **David Pascucci** (at the *EPFL, Lausanne*). People with backgrounds from various disciplines will be considered, e.g. **Neuroscience, Biology, Psychology, Mathematics, Engineering**. A PhD degree in relevant disciplines is required. **Experience of research relevant to the topic is a big plus.**

The PhD work has three main objectives, focusing on attentional function in environments containing different statistical information: 1) To evaluate the involvement of naturalistic priors and environmental expectations in biasing human perceptual decisions; 2) To understand the inferential rules that govern perceptual decisions as a function of different image statistics; 3) To investigate how the processing of image statistics is influenced by perceptual history.

The project will involve **behavioral studies** and **computational modelling** and possibly **neuroimaging** with **EEG** and **fMRI**. The work will involve a collaboration between the laboratories that the principal investigators run at the University of Iceland and EPFL in Lausanne. The primary place of work will be the Icelandic Vision Lab in Reykjavík but the work will include extensive collaboration with the laboratory of Psychophysics at EPFL in Lausanne.

Experience with experimental psychology software (e.g. PsychoPy/Psychtoolbox), programming (Python/MATLAB/C/C++), statistical software such as R, computational modelling in vision, are all definite benefits but promising candidates showing enthusiasm and willingness to learn these methods will also be considered.

The Icelandic Vision Lab offers a stimulating academic environment, and is headed by professors Árni Kristjánsson, Heiða María Sigurðardóttir and Árni Gunnar Ásgeirsson. The laboratory has an extended network of collaborations, from all over the world and is in many ways unique in this international aspect. The planned collaboration will involve potential periods abroad at EPFL, one of the leading universities in Europe.

The successful candidates will join this vibrant community of graduate students, post-docs and faculty who all work on varied aspects of visual perception. The lab is well funded with grants from the Icelandic Research Fund, The European Research Council and the Research Fund of the University of Iceland. There is good access to necessary equipment

for the studies. The lab has high-end equipment eye movement studies, for EEG, as well as extensive experience with high quality psychophysical studies.

Iceland consistently ranks as one of the best places in the world to live: (<http://worldhappiness.report/ed/2021/>), life satisfaction is among the highest in the world (<http://www.oecdbetterlifeindex.org/topics/life-satisfaction>), and the country is consistently rated the most peaceful in the world (<http://worldpopulationreview.com/countries/most-peaceful-countries/>). Iceland also ranks at the top of the world in terms of gender equality (<https://www.weforum.org/agenda/2019/12/gender-gap-equality-women-parity-countries/>). Applicants of any gender are strongly encouraged to apply.

Starting December 1st, 2021, we will start evaluating applications, but no firm deadline is set at this point.

Please send applications containing CV's and statements of your interest, explaining relevant experience to IVLapplications2020@gmail.com.

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