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**BLAVATNIK INSTITUTE**  
HARVARD MEDICAL SCHOOL  
Department of Genetics



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**Postdoctoral Fellowship Position: Stem Cell Program in Carla Kim Lab**

The Kim Lab in the Stem Cell Program at Boston Children's Hospital seeks a highly motivated postdoctoral research fellow, who will conduct research under the mentorship of Dr. Carla Kim, Professor of Genetics at Harvard Medical School, Harvard Stem Cell Institute Faculty Member, and Member of the Stem Cell Program at Boston Children's Hospital.

The broad interest of the Kim Lab is to use stem cell biology to increase our understanding of how mechanisms governing normal lung biology are impacted in lung disease and lung cancer. Our lab utilizes co-culture organoid systems that allow us to define how mouse and human lung epithelial progenitor cells are regulated by cell-cell communication. Multiple projects are aimed at using these systems to shed light on lung cancer, emphysema, COPD, idiopathic pulmonary fibrosis and other lung diseases. The position offers an exciting opportunity to work closely with scientists and medical professionals in the highly collaborative and stimulating environment of the Stem Cell Program at Boston Children's Hospital located in the vibrant Longwood / Harvard Medical Area.

There are several projects in the Kim lab for postdoctoral research fellows, including but not limited to:

- Transplantation of lung organoids to repair damaged lungs. The Kim lab is exploring the transplantation of healthy lung organoids as a tool for understanding lung stem cell biology and as a possible means to future cell-based therapy in diseased lungs.
- Organoid models of early stage lung cancer. We are using lung organoids that carry tumorigenic mutations to model the early steps of lung adenocarcinoma and devise new strategies to impair the progression of small lesions to full malignant growth.

**Recent Kim Lab publications:**

[Progenitor potential of lung epithelial organoid cells in a transplantation model.](#)

Louie SM, Moye AL, Wong IG, Lu E, Shehaj A, Garcia-de-Alba C, Ararat E, Raby BA, Lu B, Paschini M, Bronson RT, Kim CF.

Cell Rep. 2022 Apr 12;39(2):110662. doi: 10.1016/j.celrep.2022.110662.

[Organoids Model Transcriptional Hallmarks of Oncogenic KRAS Activation in Lung Epithelial Progenitor Cells.](#)

Dost AFM, Moye AL, Vedaie M, Tran LM, Fung E, Heinze D, Villacorta-Martin C, Huang J, Hekman R, Kwan JH, Blum BC, Louie SM, Rowbotham SP, Sainz de Aja J, Piper ME, Bhetariya PJ, Bronson RT, Emili A, Mostoslavsky G, Fishbein GA, Wallace WD, Krysan K, Dubinett SM, Yanagawa J, Kotton DN, Kim CF.

Cell Stem Cell. 2020 Oct 1;27(4):663-678.e8. doi: 10.1016/j.stem.2020.07.022. Epub 2020 Sep 4.

[BRG1 Loss Predisposes Lung Cancers to Replicative Stress and ATR Dependency.](#)

Gupta M, Concepcion CP, Fahey CG, Keshishian H, Bhutkar A, Brainson CF, Sanchez-Rivera FJ, Pessina P, Kim JY, Simoneau A, Paschini M, Beytagh MC, Stancliff CR, Schenone M, Mani DR, Li C, Oh A, Li F, Hu H, Karatza A, Bronson RT, Shaw AT, Hata AN, Wong KK, Zou L, Carr SA, Jacks T, Kim CF.

Cancer Res. 2020 Sep 15;80(18):3841-3854. doi: 10.1158/0008-5472.CAN-20-1744. Epub 2020 Jul 20.

**Requirements:**

The candidate should have a Ph.D. or an M.D./Ph.D. No postdoctoral experience is required.

**How to apply:**

Interested applicants should email their CV, a cover letter indicating research experience, interests and goals, and names/contact information for at least three academic references to the Dr. Carla Kim at [Carla.Kim@childrens.harvard.edu](mailto:Carla.Kim@childrens.harvard.edu)