## **Post-Doctoral Transitional Development Support scheme**

Dr Basak Tas

## Six-month report

I'm a postdoctoral researcher within the Addictions Department of King's College London. I was lucky enough to be the first recipient of this award under this scheme. I was awarded this fund to allow me to progress research plans and apply for larger scale funds.

I have been focussing predominantly on developing five lines of work:

- 1) investigating overdose and respiratory depression among heroin users who are in diamorphine maintenance treatment and therefore receive pharmaceutical diamorphine. We have started recruitment for this study as a re-activation of previous work that has been revised to include further testing and also, a more robust model from which we can test other risk factors further.
- 2) drafting a study protocol that aims to use a similar model of overdose but will recruit from a non-treatment seeking population, a group that is often overlooked but that is crucial in terms of risk of opioid overdose.
- 3) widening the recruitment potential for these overdose studies by developing a portable version of the equipment that measures respiratory depression. This will be incredibly useful for the future as the target population is widely spread across several regions.
- 4) discussions with several industry partners to establish whether novel and wearable devices that measure respiratory function are suitable for the overdose studies that are being planned and conducted. I am now working on incorporating the most appropriate devices into the studies.
- 5) developing a separate line of research on injecting motion signatures with colleagues within the King's. The purpose of this work is to establish whether there are any detectable similarities in injecting movement patterns among injecting drug users. This work is still in its early stages but could prove to be promising and useful in capturing moments of particular vulnerability to overdose.

Thus far, the award has been great in allowing me the time to transition from PhD student to a more established researcher. It has given me the opportunity to focus on planning research projects and collating data that will be useful both for putting together applications but also enable me to grow as a more independent researcher.

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