My research project for the fellowship will be divided in two parts:

1) study in depth an innovative procedure of induced annealing for the irradiated SiPMs of the Mu2e elettro-magnetic calorimeter and determine if it is possible to implement it during the data taking. A successful and safer “induced annealing” technique would allow us to operate the photo-sensors at room temperature and to reduce the EMC cooling needs.

2) work in the integration of the EMC photo-sensors and electronics in the experiment. It consists on the integration of the mechanical design and of the electronics (including photo-sensors, front-end electronics and custom boards that perform digitization of the signals) and assure that all calorimeter services fit well in the limited space available inside the DS cryostat.