The award of CHF 50'000 is granted to the following project:

**Impact of structural and organizational reforms on residents’ daily work**

**Principal investigators:**

Dr Antoine Garnier, MD MBA  
Centre hospitalier universitaire vaudois (CHUV)  
Rue du Bugnon 46  
1011 Lausanne  
antoine.garnier@chuv.ch

**Abstract**

**Background and Rationale**
Due to an increasing number of complex polymorbid patients, a heavier administrative burden, and the evolution of young residents' expectations, organization of work in internal medicine wards is of outmost importance. In a 2015 study, we showed that residents spent 1.5 hours on administrative tasks and 1.7 hours with patients per day. In addition, residents switched activity on average 15 times per hour. This study motivated major reforms: task delegation to non-medical professionals, reorganization of the workday's schedule, and implementation of an early morning inter-professional decision meeting. An associated reduction in administrative and working hours and increased time with patients could greatly improve job satisfaction and attractiveness for internal medicine.

**Aim**
We aim to quantify the impact of the organizational and structural reforms implemented in our department between 2016 and 2017 on residents’ administrative workload, continuity and adequacy of work, duration of shifts, and time spent with patients.

**Methods**
We will use a before and after design, comparing residents' activities during shifts with time and motion studies. We will include all residents working on the internal medicine ward in Lausanne University Hospital. The before group was observed in 2015 and results are already published. The after group will be observed in 2018, using the exact same methods and tools. The intervention is made of major reforms implemented between 2016 and 2017, which will be reported in detail. The primary outcome will be time spent for administrative tasks. We will also measure the amount of task switching per hour, the mismatch between observed activities compared to the departmental work schedule, the effective duration of observed shifts, and the time spent in presence of patients. We added a qualitative part by means of focus groups composed of observed residents.

**Results and expected benefits:**
We already have 697 hours of observation on the before group. For the after group, we expect to include 35 residents. Each resident being observed twice, we will gather between
700 and 900 hours of observation. Based on our previous study, this number will be sufficient to show a significant reduction of 20% of administrative tasks (20 minutes per shift). A significant reduction of administrative burden will give an objective assessment of the impact of our reforms but will also confirm the options we took to develop the framework for future young residents and keep hospital internal medicine attractive. Such a time-and-motion study, which has been already replicated in another hospital, is a consistent base for auditing workplace quality, compared to other quality indicators like the average length of stay of patients.

Basel, 31.05.2018