



# Subtask 4.2 Characterizing impact of air pollution on human health

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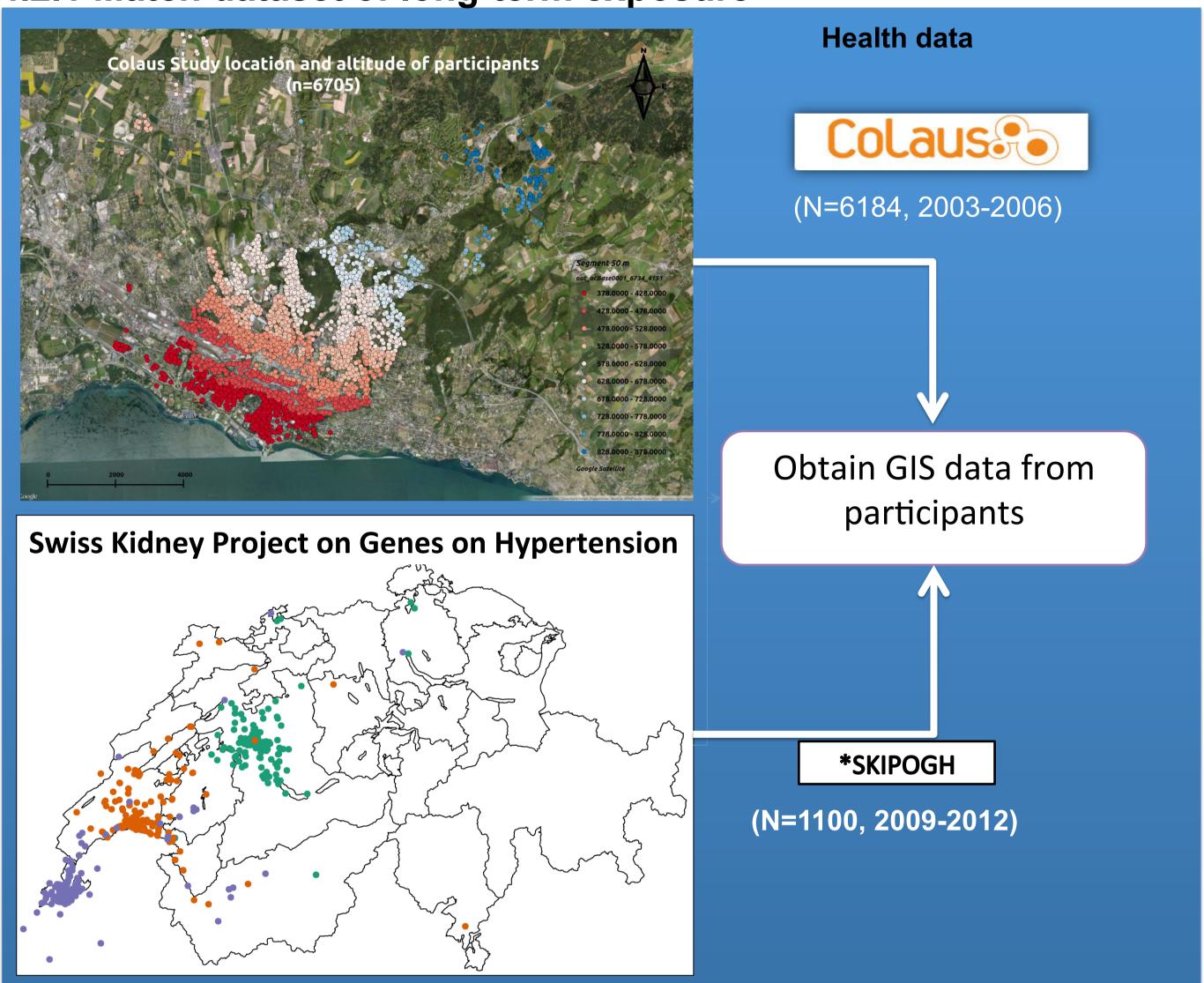
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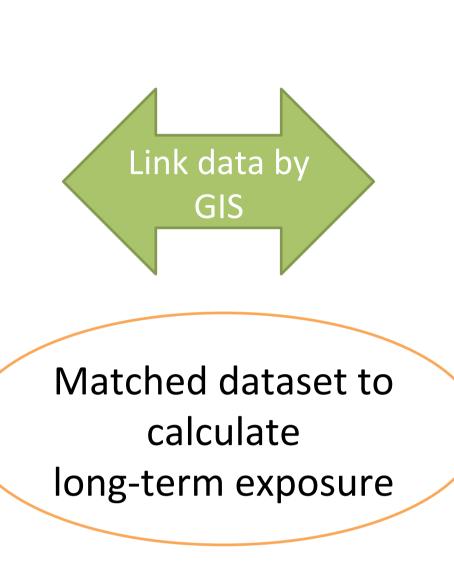


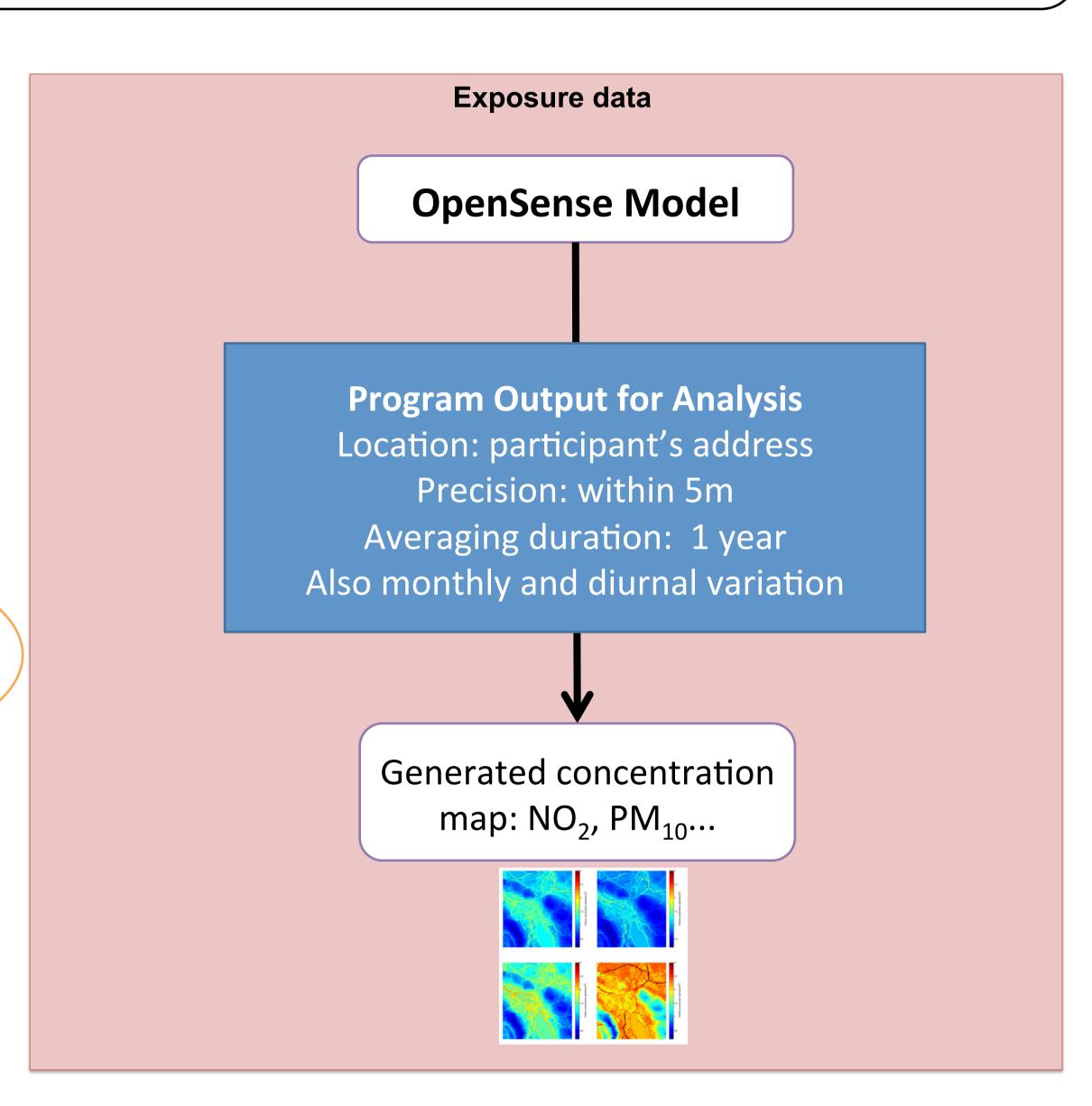




## 4.2.1 Match dataset of long-term exposure



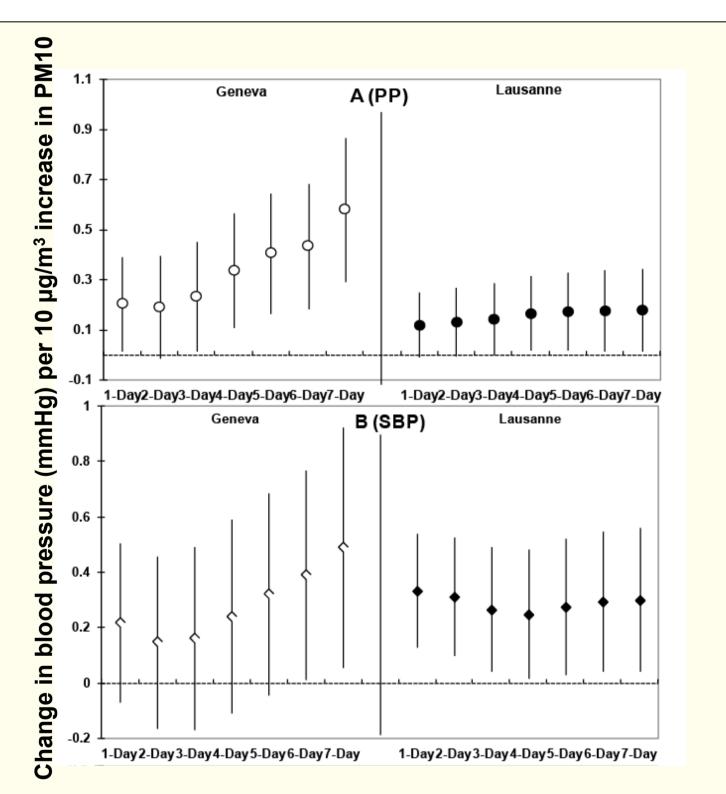


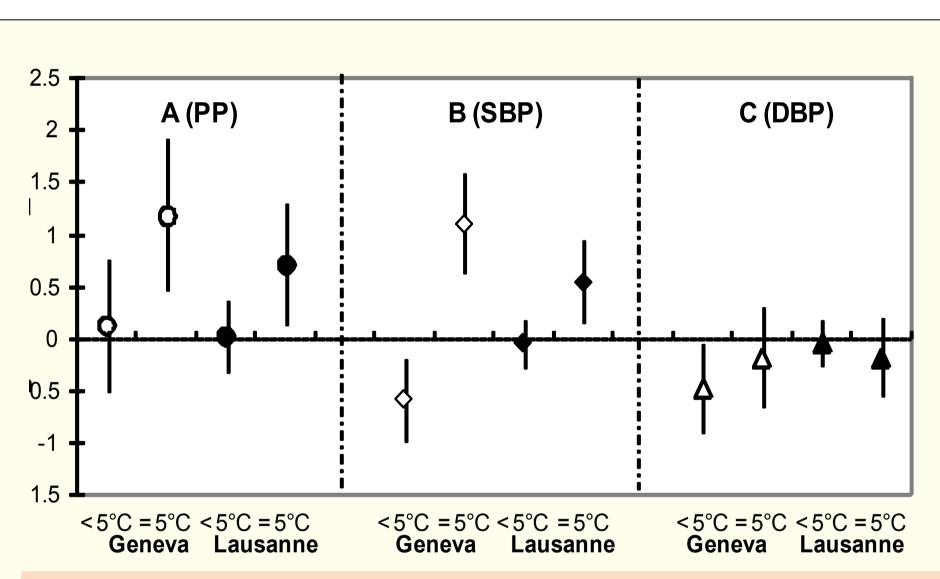


## 4.2.2 Assess association of air pollution and health outcomes

 Air pollution and blood pressure: CoLaus and Bus Santé J Hypertens. 2015 Feb 7. Short-term effects of particulate matters on pulse pressure in two general population studies Tsai DH, Guessous I, Riediker M, Paccaud F, Gaspoz JM, Theler JM, Waeber G, Vollenweider P, Bochud M\*.

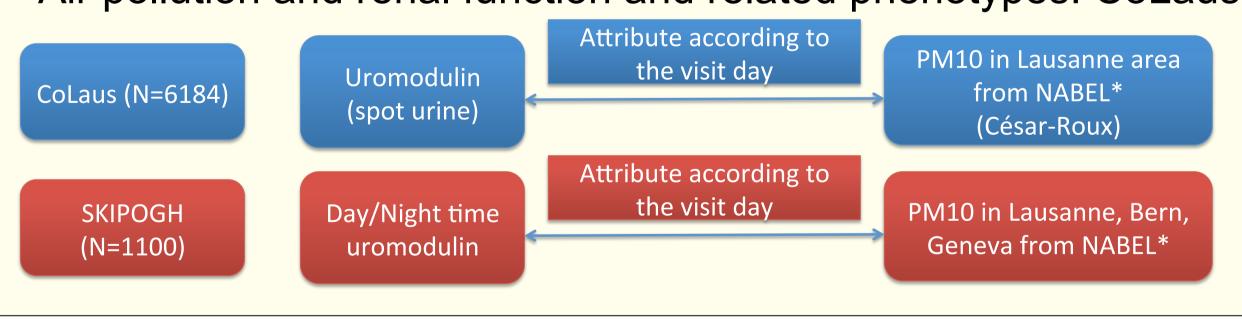
Method Attribute according to PM10 in Lausanne area SBP the visit day from NABEL\* CoLaus (N=6184) DBP PP (César-Roux) Attribute according to PM10 in Geneva Canton SBP Bus Santé the visit day and zip code from SABRA\*\* DBP (N=5605) (3 urban, 2 suburban, and PP 2 rural)





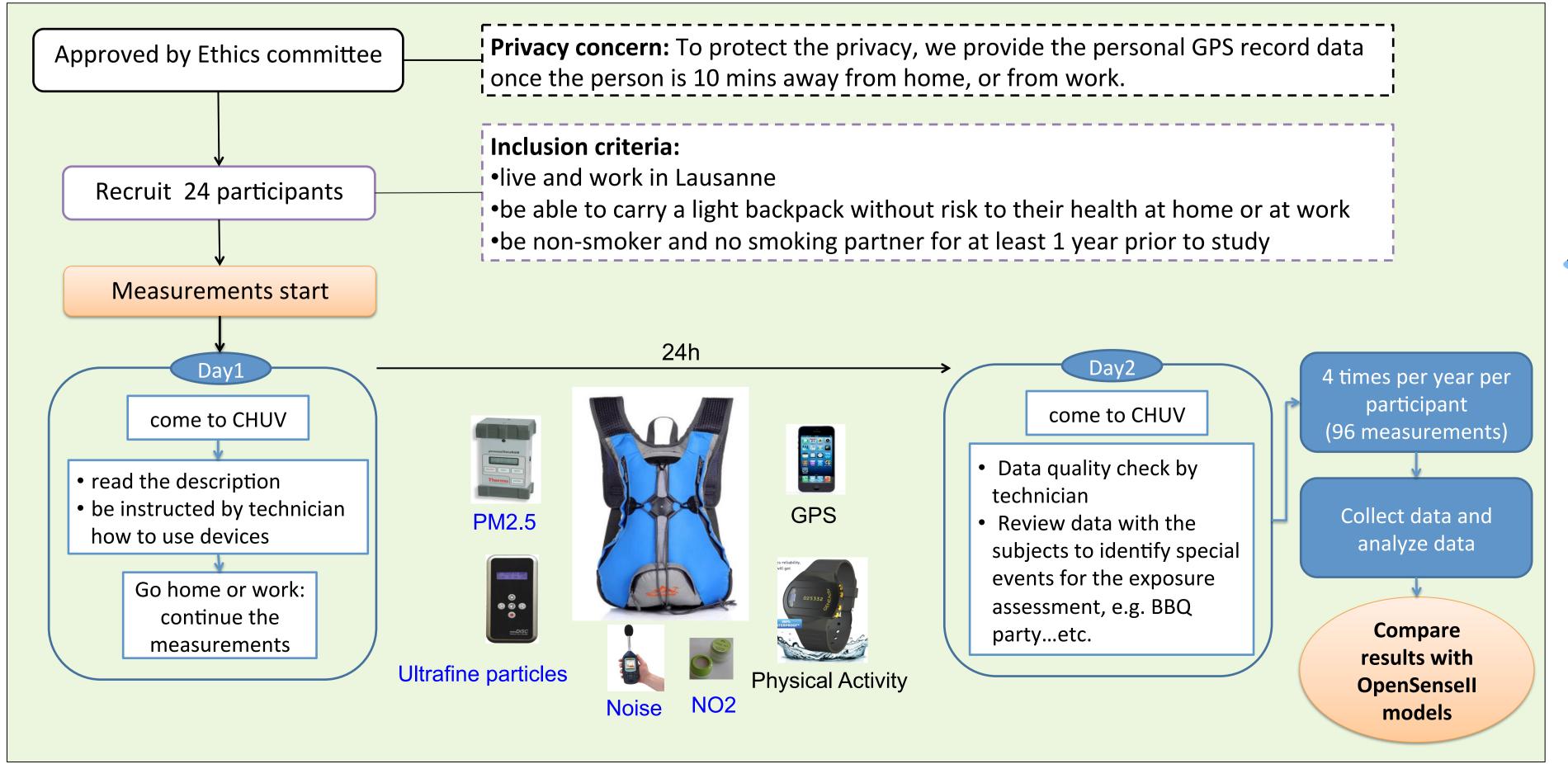
- Positive associations of pulse pressure and systolic blood pressure with short-term exposure to PM10.
- Stronger associations were observed when outdoor temperature was above 5°C.

Air pollution and renal function and related phenotypes: CoLaus and SKIPOGH

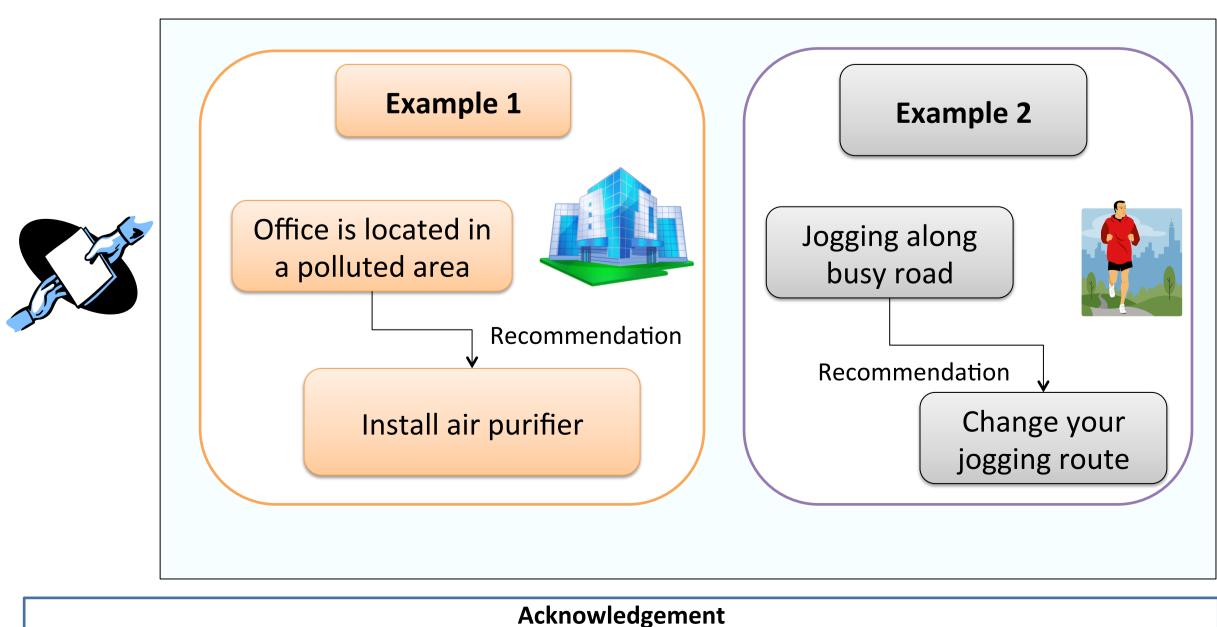


The preliminary results suggest an association of increased PM10 levels with increased levels of a selected urinary protein among women. This effect was not found among men, probably due to the differences in sex hormone levels. Further investigation needs to done when long-term exposure data for participants is available

## 4.2.3 Design a pilot study



## 4.2.4 Personalized recommendation



Peter Vollenweider, Martin Preisig, Gérard Waeber, Pedro-Manuel Marques-Vidal, teams of recruiters (N=7).

Idris Guessous, Jean-Michel Gaspoz, team of recruiters (N=5). SKIPOGH:

Paccaud. Fellows (MDs): Menno Pruijm, Belen Ponte, Daniel Ackermann, Idris Guessous, Georg Ehret, Marianne Serveaux, Marie-Eve Müller, Nasser Dahyat, Yassine Bouatou, Heba Alwan, Pierre Monney, Stéphane Reverdin.

Co-investigators: Michel Burnier, Pierre-Yves Martin, Bruno Vogt, Markus Mohaupt, Antoinette Péchère-Bertschi, Olivier Devuyst, Fred

Scientific collaborators: Sandrine Estoppey, Philippe Vuistiner, Marie-Odile Levy, Güler Gök-Sogut, Ulla Schupbach. Administrative collaborators: : Renata Testaz, Filomena Jacquier.