**Study 1 - Outline**

Phase 1 (15-30april): select around 100 odorants that characterized on both chemical and perceptual levels (intensity, pleasantness, familiarity, edibility, trigeminality)

=> we will prepare a common excel file combining all of our pilot data (from Dresden and Lyon)

Phase 2 (1-15may): select 50 odorants that are representative of both chemical and perceptual spaces (from the list of 100 odorants)

Phase 3 (15-may to 15 july): pre-test with the olfactometer these 50 odorants to get an appropriate level of perceived intensity (concentration level)

25 odorants tested in Lyon

25 odorants tested in Dresden

=> we will prepare a common excel file combining all of our data

Phase 4 (from now to 15 july): measure the gas concentration using a PID

Done in Lyon

Phase 5 (from 15 july to end of November): test these 50 odorants in both Lyon (50 participants) and Dresden (50 participants + Patients)

Design:

- 5 experimental sessions

- 10 different odorants per session

- Each odorant is presented 4 times per session (40 odorant trials per session)

- Each trial consists in:

* Visual instruction to « breath normally » (3 seconds)
* Odor presentation (5 seconds)
* Questions: 2 ratings (either intensity/pleasantness, familiarity/edibility, irritation/cooling, pain/warmth)

- Pseudo-randomization within session (sub-blocks of 10 odorants; and the last odorant of a given block could not be the first odorant of the next block)