

Workshop

Two-day Night Science & Train the Trainer Workshops

At the heart of every scientific breakthrough lies a creative process that remains largely unacknowledged and untaught. Modern research training focuses almost exclusively on “Day Science”, the formal, rigorous testing of hypotheses through experimental design and statistical analysis. Day Science is central to science, but it represents only half of the discovery cycle. “Night Science” is the creative, unstructured realm in which those hypotheses are born. As Nobel Laureate François Jacob described it, it is a “workshop of the possible,” where researchers wander blind, make associative leaps, and find the unknown unknowns that drive progress. Yet scientists are almost never given explicit tools to work in this mode; they are left to rediscover those tools alone, or not at all. With the workshop we want to give researchers concrete mental tools for gaining novel insights and making discoveries, including the appreciation and navigation of creative crises and the reframing of stubborn problems.

Day 1: Key curriculum elements

- **The Science Buddy / Improvisational Science.** Practicing the “Yes, and...” rule of improvisational theater to build a high-trust sandbox where ideas get a chance to develop.
- **The Two Languages of Science.** Code-switching between the precise language of execution and the intuitive, free, and metaphorical language of discovery.
- **Finding the Question.** Rephrasing broad topics into actionable research questions.
- **Interdisciplinarity (Import / Export).** Importing concepts and tools from distant fields to solve local puzzles; this is a skill tailor-made for interdisciplinary tandems.
- **The Meta-Puzzle.** Identifying “out-of-the-box” challenges that require dropping hidden assumptions.

Day 2:

A meta-workshop day that prepares participants to lead Night Science workshops and courses at their own institutions, teach the core thinking tools, and adapt content to diverse scientific domains.