Life in a startup

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Overview

- OakLabs
- The Business
- Financing
- The deal with the money
- Employees
- The exit
- Since 2011
- 35 min. from Berlin center
- 10 employees + 2
- Shareholders
  - HTGF (Venture Capital)
  - Martina Schad
  - Jim Kallarackal
The Business

- Geneexpression analysis
  - Wet lab service
  - Data analysis incl. pathways and robust statistics
  - Proprietary software tool
- Molecular simulation of DNA
  - PCRdrive
  - Molecular dynamics
  - Atomic precision
  - 7.2 bn USD market per year
PCR

Some biological sample

Traces of DNA

Specific amplification

Up to $2^{40}$ fold amplification
Simulation: Primer hybridisation and denaturation, specificity, temperature, time
Simulation workflow

1. Monte Carlo algorithm using molecular force fields
2. Parallel computation on GPU
3. Thermodynamics simulation based on the Monte Carlo run
4. Extrapolation based on rules and reference curves

Workflow and iterations to predict the optimal PCR
Customers Benefit

- Time
- Costs
- Optimal
Financing

- Required capital: ≈ 1 mio. Euro
- Investors
  - Bank
  - Venture Capital
  - Crowd funding
Venture capital

- Due diligence
- Return on investment: $10\times$
- Exit: 5 – 7 years
- privileged shareholder
- 6% chance
The deal with the money

- Regular monitoring
- Milestones
- Proof of concept
Crowd funding

- 500,000 Euro in 2014
- Almost 500 investors
- Blue print to launch new products
The employees

- Find highly motivated young people
- Address emotional conflicts
- Make employees to shareholders
The exit

- Below 40
  - Motivated / unsatisfied
  - Risk affine
  - Nothing to lose
  - Eager to improve continuously

- Above 40
  - Be a mentor
  - Be part of many startups
  - Manage ideas