Output Group

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Part 1: Selection of Sensors

- What we can do right now!

Part 2: Cloning/ Characterization

- Timeline

Part 3: Imaging/ Modeling

Part 1: Selection of Sensors

- Select Sensors: ***At least 5 promoters needed!***
- Promoters in Bioquant:
  - Elk 1 (ras-raf-MAPK signaling cascade)
  - PUMA (p53 up-regulated modulator of apoptosis)
  - ATM2 (DNA damage response)
  - Hypoxia (which one is the best?)
- Are there other groups at DKFZ or EMBL we could ask for promoters??

Part 1: Selection of Output Signals

- Select Fluorescent Proteins to be used
  - Minimum of 3 colors
- Select useful Localizations Signals
  - Mitochondria, ER, Plasma membrane

Part 2: Cloning/ Characterization

- Cloning (3-4 weeks)
- Stable cell lines (2-3 weeks)
- Characterization of Constructs (2-3 weeks)
- Modeling can start once a stable cell line is established

➢ **PARTS HAVE TO BE SUBMITTED BY END OF SEPTEMBER!!!**

Part 3: Imaging/ Modeling

- As soon as we get a working system the modeling group can start working on the “Cell Profiler”
- Modeling can run in parallel:
    - promotor modeling / interface / CellProfiler / colour encoding

Time Schedule

June	• Selection of Sensors • Plasmid Design
July	• Cloning • Characterization of Constructs
August	• Cloning cont. •Generation of stable cell lines
September	• Cloning/ Characterization/ Stable Cell line cont. • **Submit parts!!**
October	• Imaging • Modeling - Toolbox