Eugene solves combinatorial design problems in Synthetic Biology. It offers:
- Design Space and Part descriptions
- Rule-compliant Devices
- Combinatorial Functions to generate rule-compliant Devices automatically

### Design Space Declaration
- **Part Properties**
  - Name
  - Sequence
- **Part Types**
  - Repressor, Promoter, Repressor
- **Parts**
  - Repressor
  - Promoter
  - Terminator

### Genetic Regulatory NOR Gate [2]
- **Rules**
  - A NOR Gate with two inputs
  - Rules for input combination:
    - Input 1: GFP before RFP
    - Input 2: Different Reporters

### Recombinase-based NOR Gate [3]
- **Rules**
  - A NOR Gate with two inputs
  - Rules for input combination:
    - Input 1: GFP before RFP
    - Input 2: Different Reporters

### EugeneLab: A Web-based IDE for Eugene
- **Data Import**
  - e.g. Parts
- **Data Export**
  - e.g. Devices

### References:

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