

**E.ADEM v0.0.4.3**

2009.7.11

2009.5.3

68 days

2009.7.11

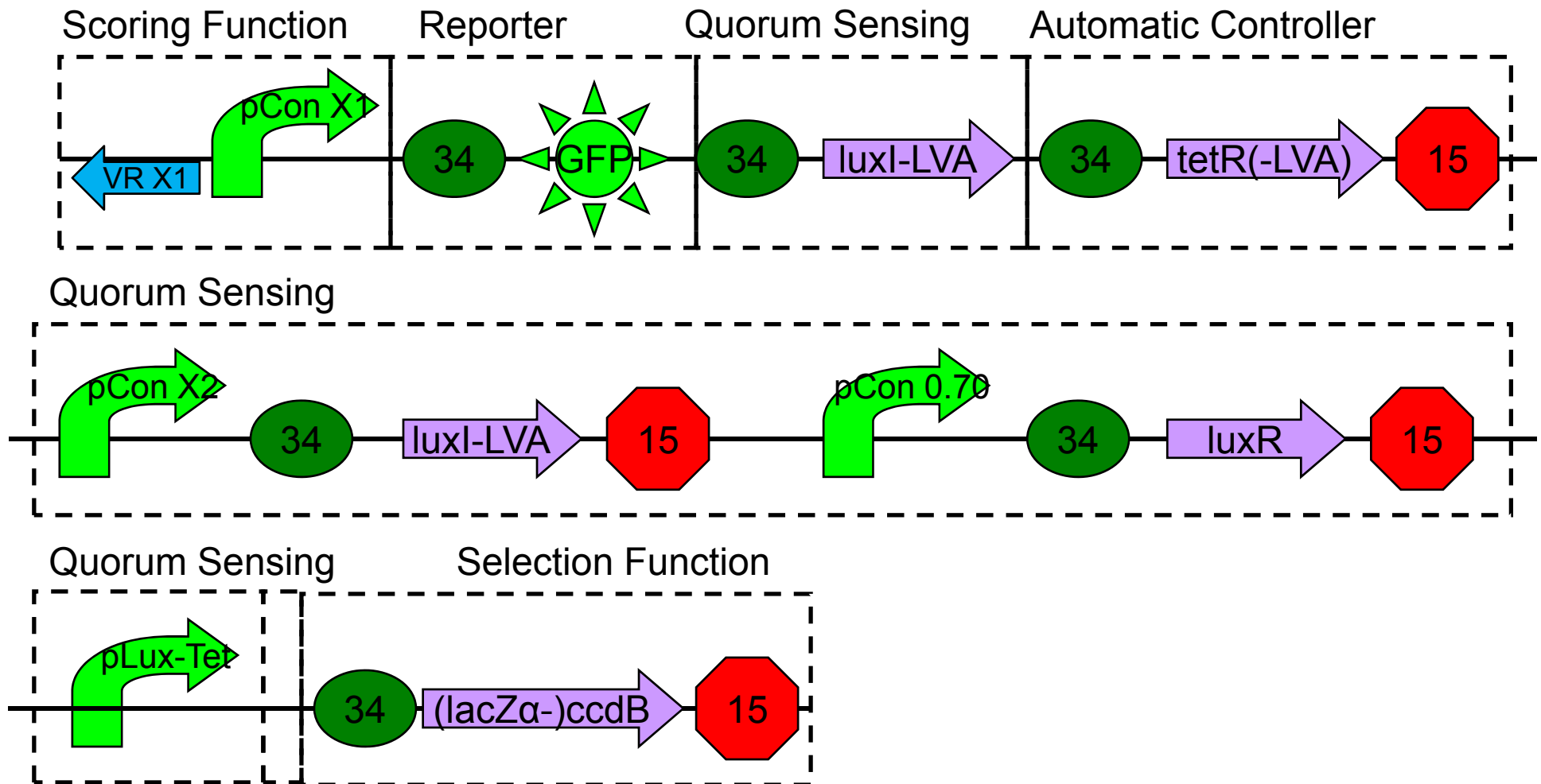
110 days

2009.10.30

# Outline

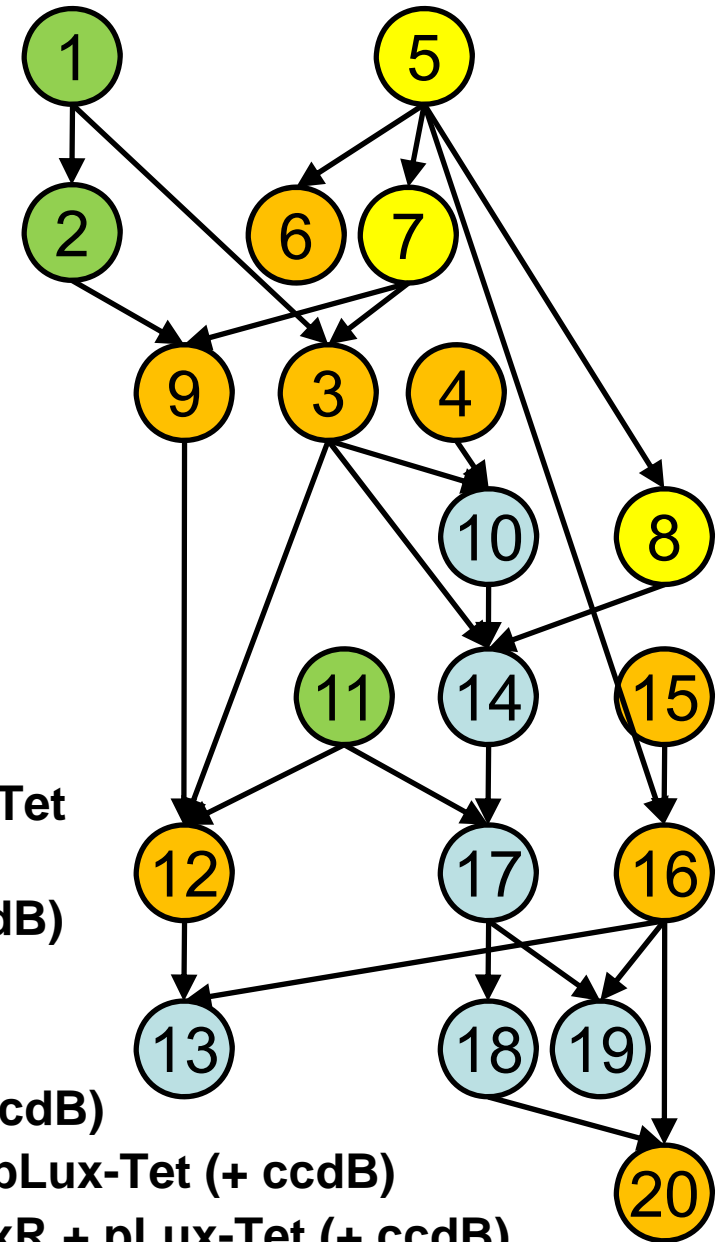
- Assembly
- Measurement
  - General Conditions
  - GFP
  - AHL
  - CcdB
  - LacZ $\alpha$
- Wiki
  - Team project description
  - Notebook
- Instructional Videos

# Assembly

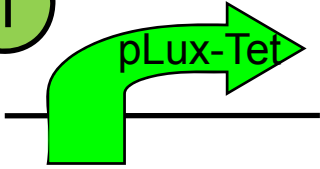


1. pLux-Tet
2. pLux-Tet + GFP
3. pCon + luxR + pLux-Tet
4. ccdB × 2
5. pCon × 8
6. pCon × 8 + GFP
7. pCon + luxR
8. pCon × 7 + luxI (AHL detection by 9 or GC-MS ?)
9. pCon + luxR + pLux-Tet + GFP (AHL)
10. pCon + luxR + pLux-Tet + ccdB × 2 (AHL)
11. tetR × 2
12. tetR × 2 + pCon + luxR + pLux-Tet (+ GFP)
13. (VR + pCon) × 8 + tetR × 2 + pCon + luxR + pLux-Tet (+ GFP) (AHL/aTc)
14. (pCon × 7 +) luxI + pCon + luxR + pLux-Tet (+ ccdB)
15. VR × 8
16. (VR + pCon) × 8
17. tetR + pCon + luxI + pCon + luxR + pLux-Tet (+ ccdB)
18. GFP + luxI + tetR + pCon + luxI + pCon + luxR + pLux-Tet (+ ccdB)
19. (VR + pCon) × 8 + tetR + pCon + luxI + pCon + luxR + pLux-Tet (+ ccdB)
20. (VR + pCon) × 8 + GFP + luxI + tetR + pCon + luxI + pCon + luxR + pLux-Tet (+ ccdB)

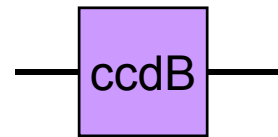
Waiting  
Working  
Done  
Sequenced



1



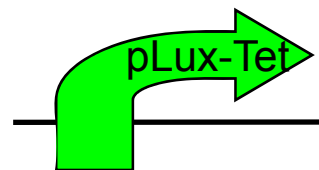
K176000 X+P with nicks  
Sequence OK



P1010 in pSB1A3 in DB 3.1  
Length OK

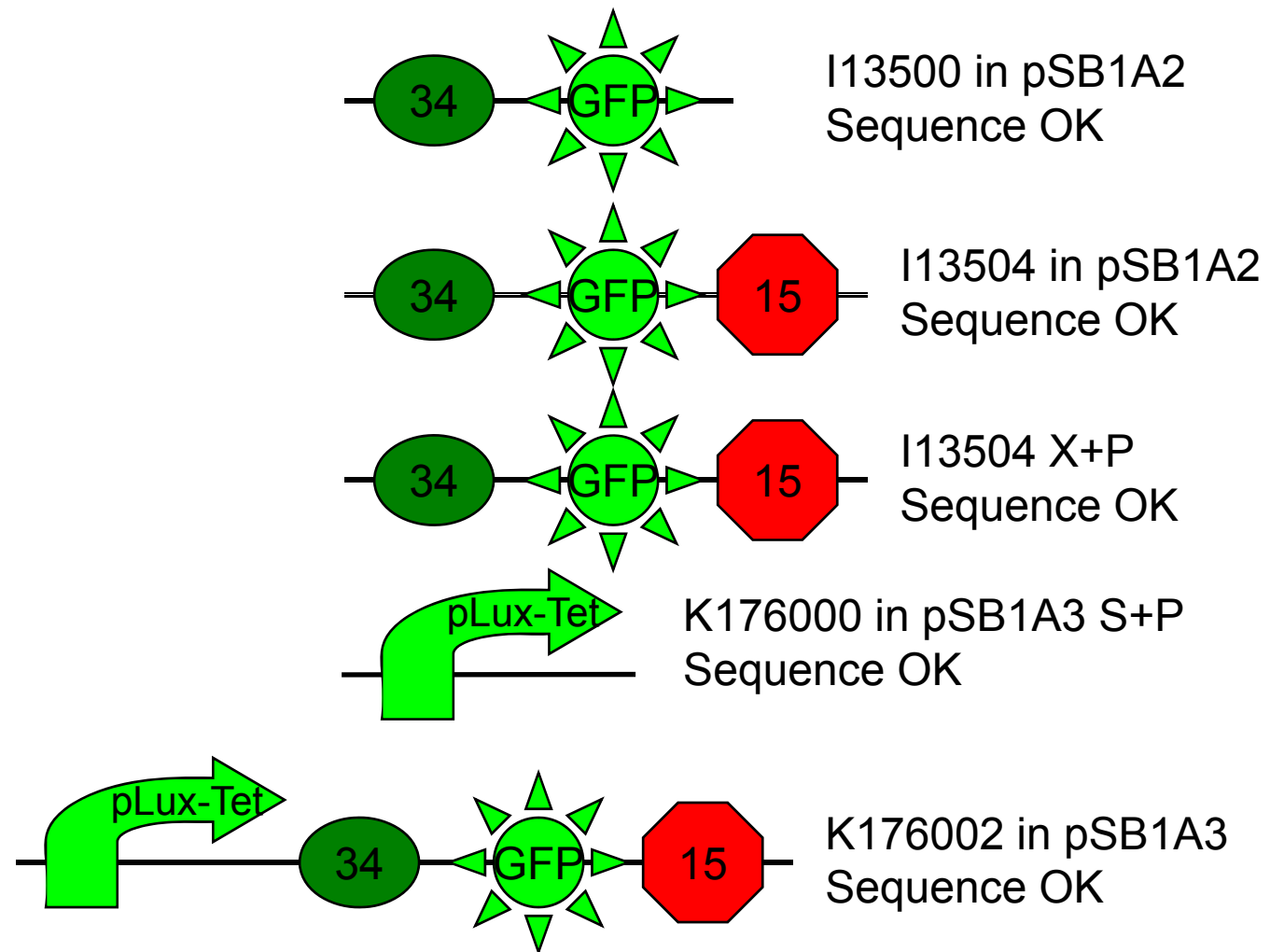


pSB1A3 X+P  
Length OK



K176000 in pSB1A3  
Sequence OK

2

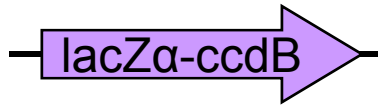


4



K145151 in pSB1A2 in DB 3.1

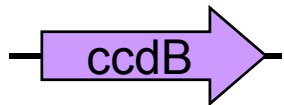
Sequence OK  
K176003 Fragment Length OK



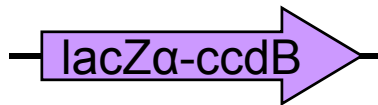
B0034 in pSB1A2  
Sequence OK



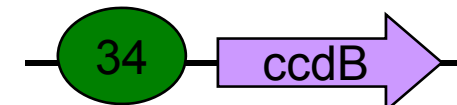
B0034 in pSB1A2 S+P  
Length OK



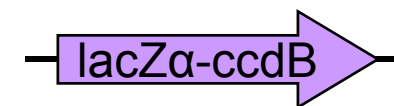
K145151 X+P  
Length OK



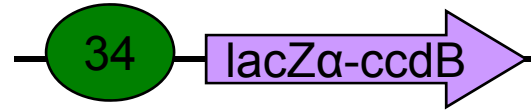
K176003 X+P  
Length OK



K176010 in pSB1A2 in DB 3.1  
Sequencing



K176003 in pSB1A3 in DB 3.1  
Sequence OK

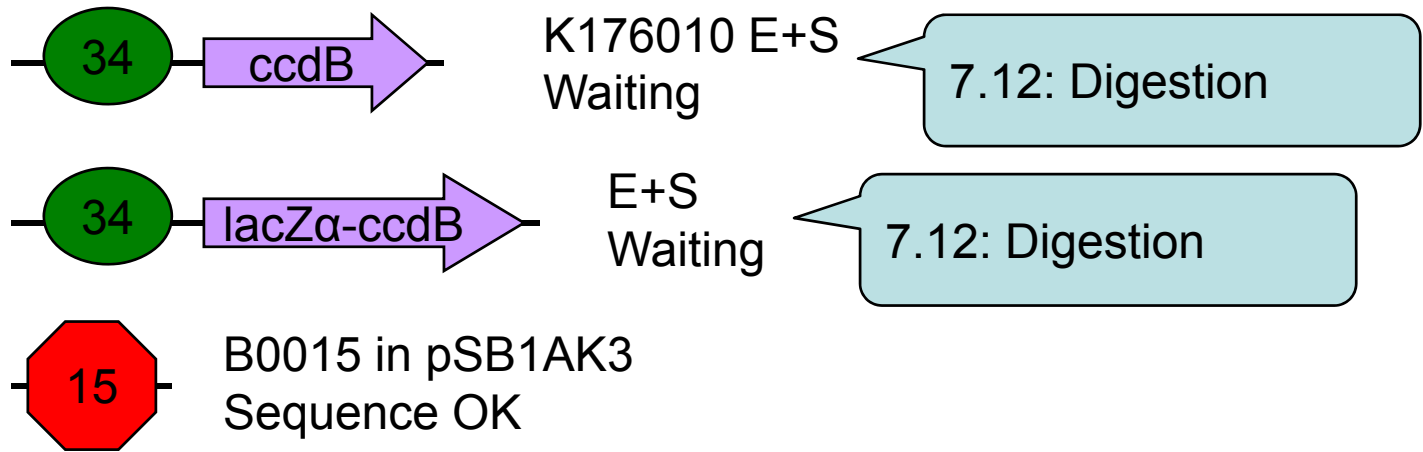


in pSB1A2 in DB 3.1  
Ligation

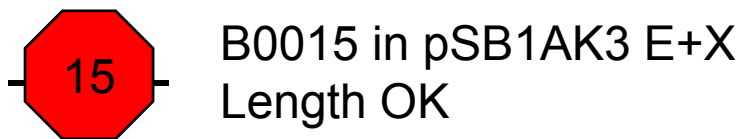
7.11: Ligation  
7.12: Colony PCR;  
Mini-Prep  
7.13: Sequencing  
7.16: Sequence OK

7.11: Ligation  
7.12: Colony PCR;  
Mini-Prep  
7.13: Sequencing  
7.16: Sequence OK

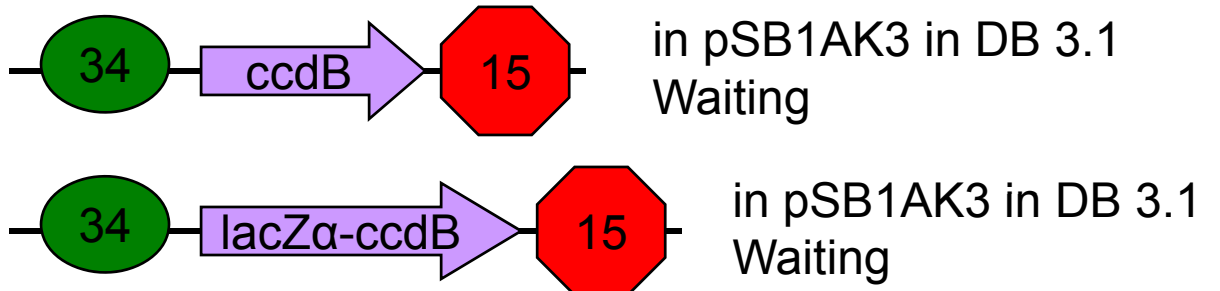




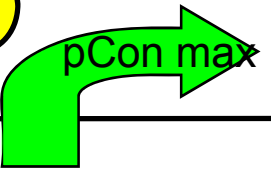
7.13: Ligation  
7.14: Colony PCR;  
Mini-Prep  
7.15: Sequencing  
7.18: Sequence OK

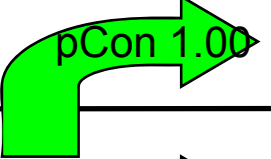


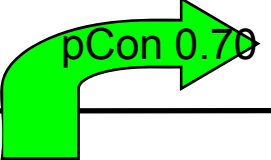
7.13: Ligation  
7.14: Colony PCR;  
Mini-Prep  
7.15: Sequencing  
7.18: Sequence OK

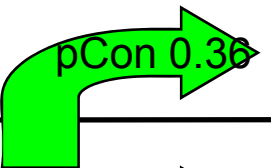


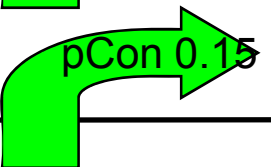
5

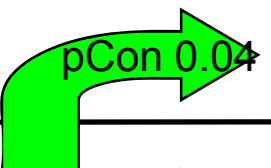
 J23119 in pSB1A2  
Sequence OK

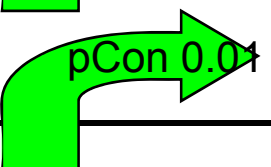
 J23100 in J61002  
Sequence ?

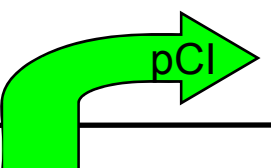
 J23101 in J61002  
Sequence OK

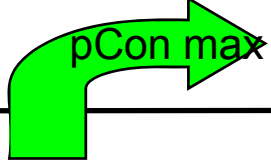
 K176009 in J61002  
Sequence OK

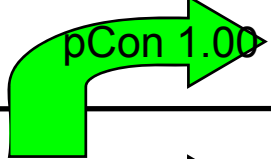
 K176008 in J61002  
Sequence OK

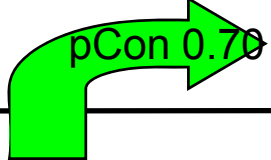
 J23109 in J61002  
Sequence OK

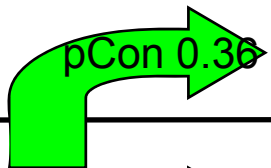
 J23103 in J61002  
Sequence OK

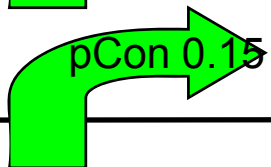
 R0051 in pSB1A2  
Sequence ?

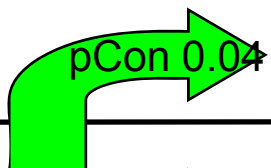
 J23119 X+P  
Sequence OK

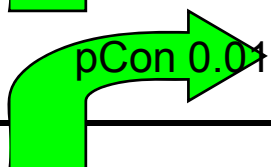
 J23100-J61002SF X+P  
Sequence ?

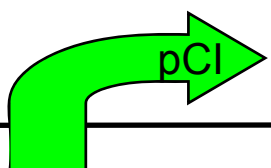
 J23101-J61002SF X+P  
Sequence OK

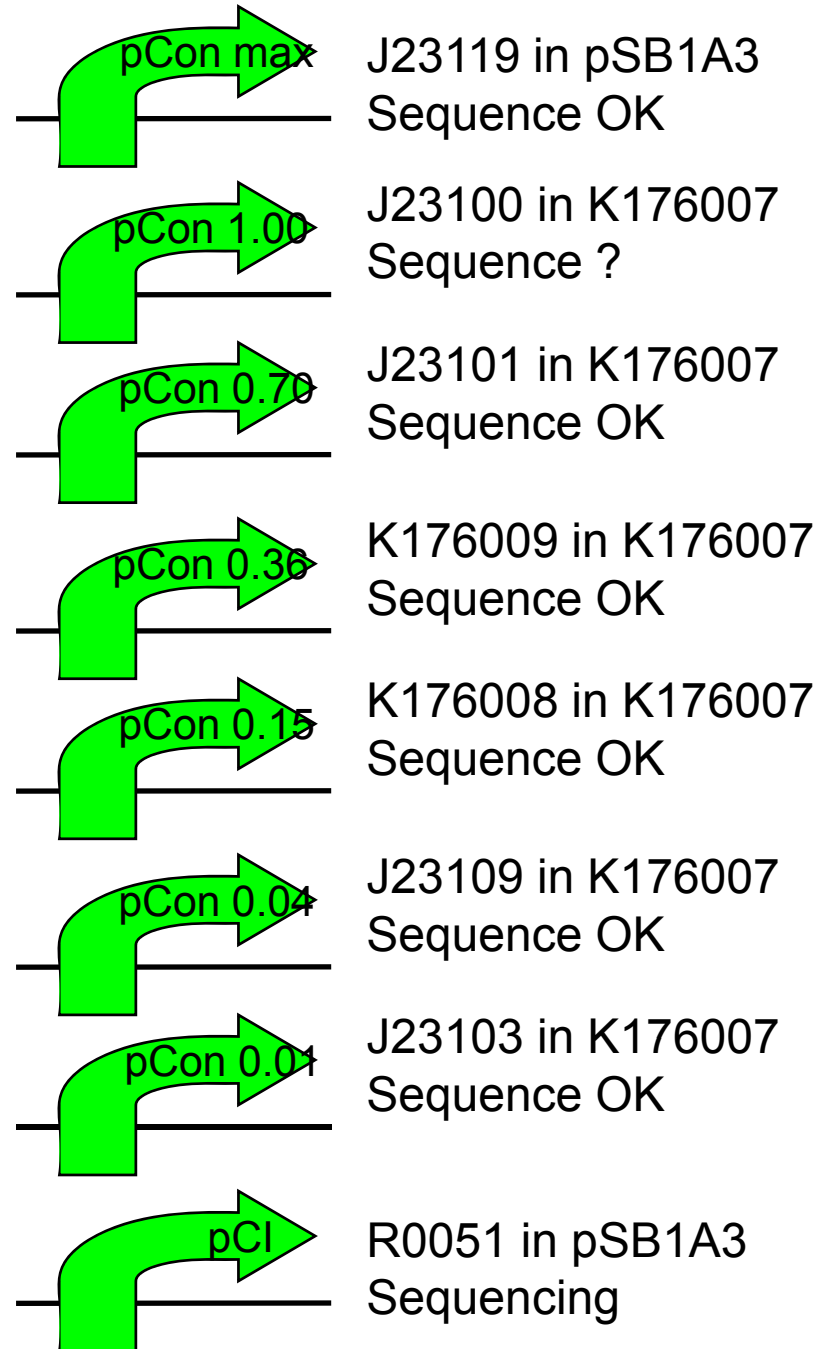
 K176009-J61002SF X+P  
Sequence OK

 K176008-J61002SF X+P  
Sequence OK

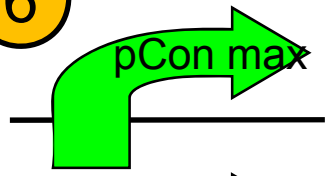
 J23109-J61002SF X+P  
Sequence OK

 J23103-J61002SF X+P  
Sequence OK

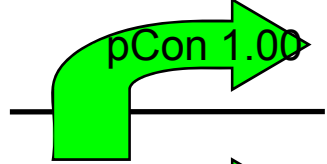
 R0051 X+P  
Length ?



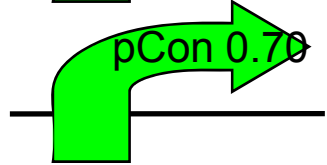
6



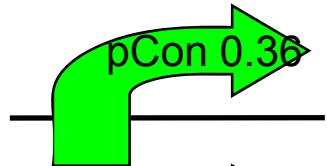
J23119 in pSB1A3 S+P  
Length OK



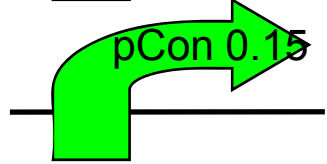
J23100 in K176007 S+P  
Digestion



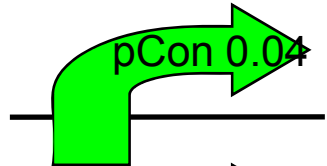
J23101 in K176007 S+P  
Length OK



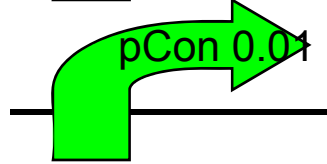
K176009 in K176007 S+P  
Length OK



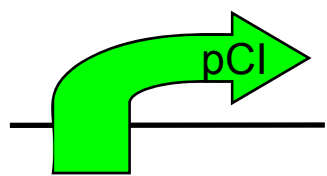
K176008 in K176007 S+P  
Length OK



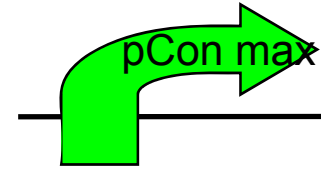
J23109 in K176007 S+P  
Length OK



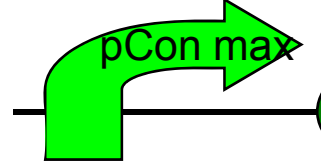
J23103 in K176007 S+P  
Length OK



R0051 in pSB1A3 S+P  
Digestion



J23119 in pSB1A2 S+P  
Sequence OK

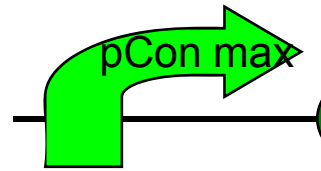


34



15

K176005 in pSB1A2  
Sequence OK



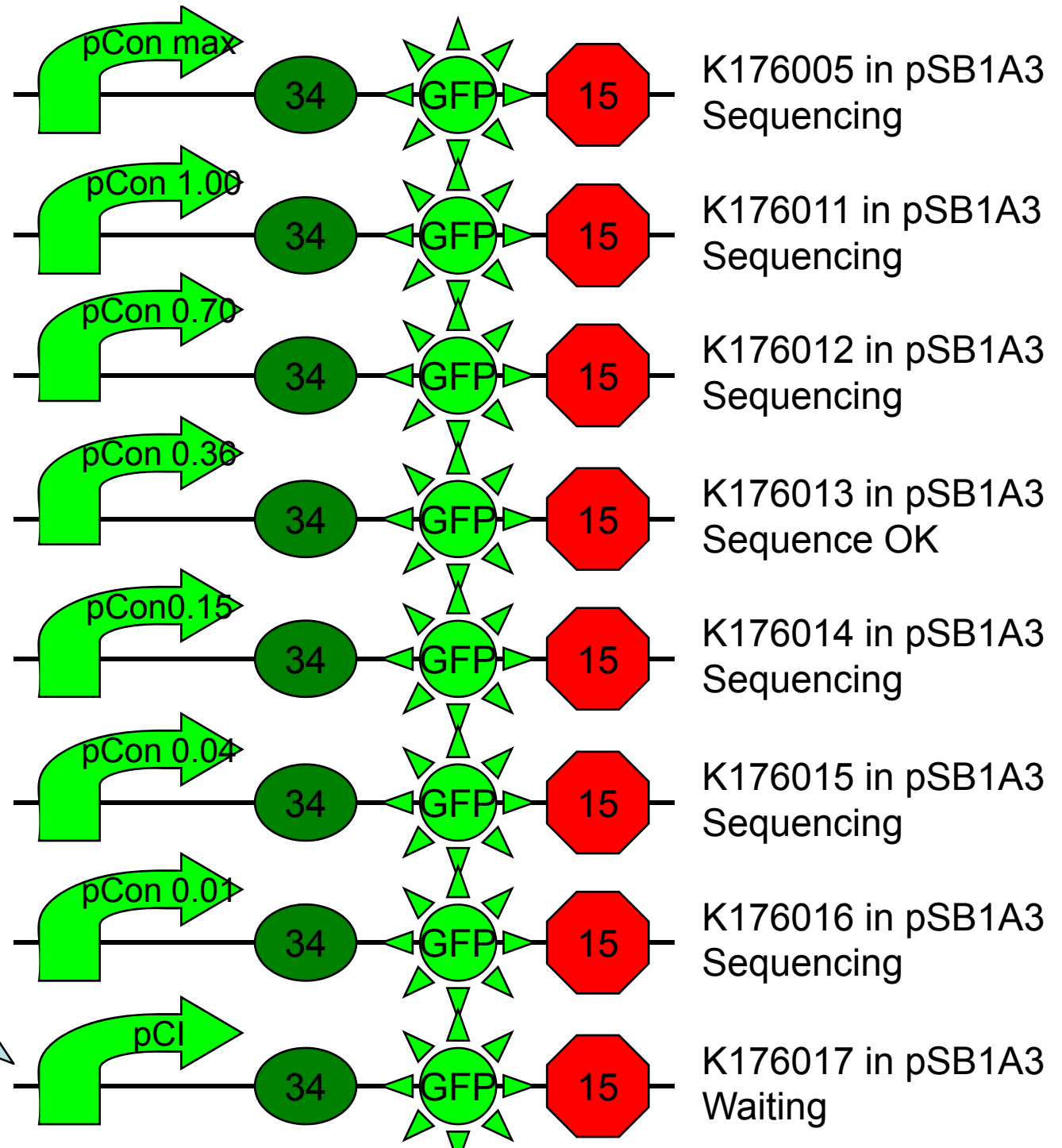
34



15

K176005 X+P  
Length OK

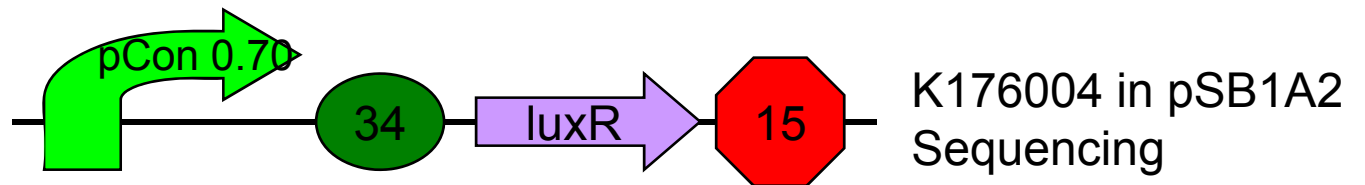
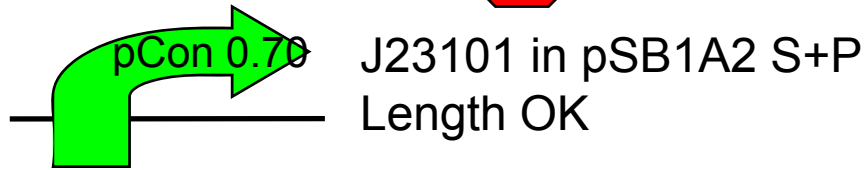
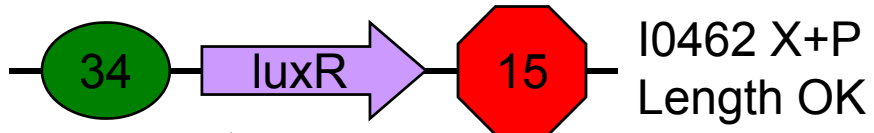
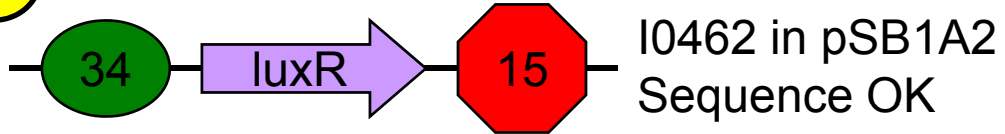
7.12: Digestion

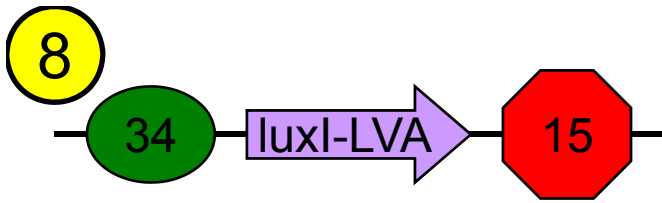


7.11: Mini-Prep;  
 Sequencing  
 7.12: Measurement  
 7.14: Sequence OK

7.13: Ligation  
 7.14: Colony PCR;  
 Mini-Prep  
 7.15: Sequencing  
 7.18: Sequence OK

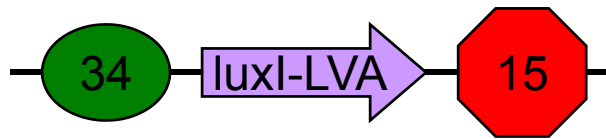
7



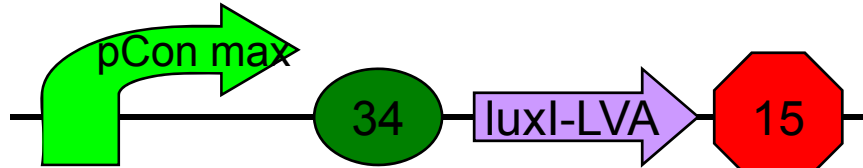


K082014 X+P  
Length OK

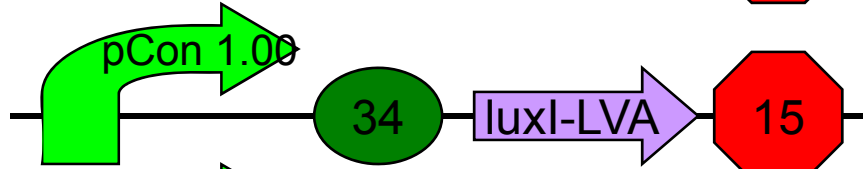
7.11: Mini-Prep;  
Sequencing  
7.12: Measurement  
7.14: Sequence OK



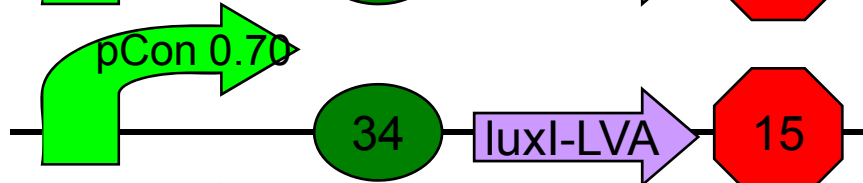
K082014 in pSB1AK3  
Sequence OK



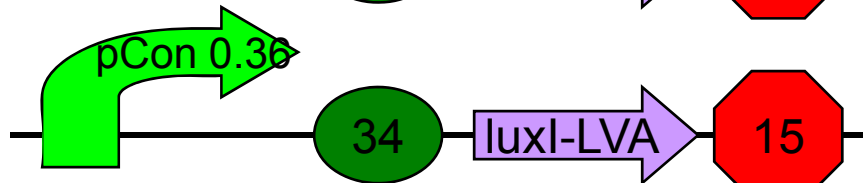
K176018 in  
pSB1A3  
Sequencing



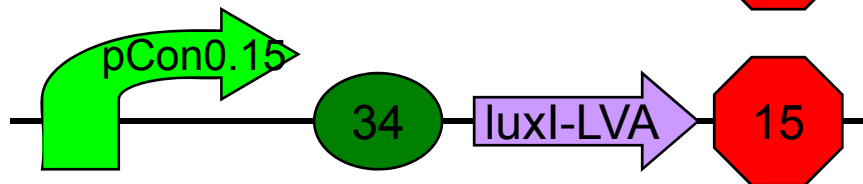
K176019 in  
pSB1A3  
Sequencing



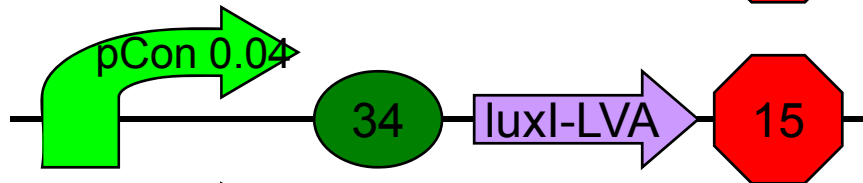
K176020 in  
pSB1A3  
Sequencing



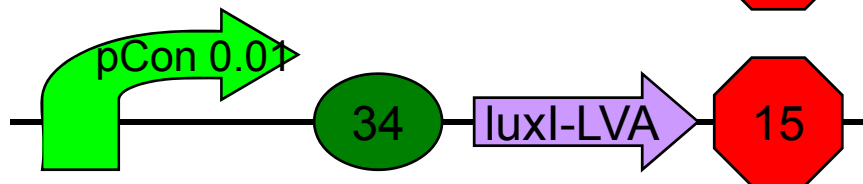
K176021 in  
pSB1A3  
Sequencing



K176022 in  
pSB1A3  
Sequencing

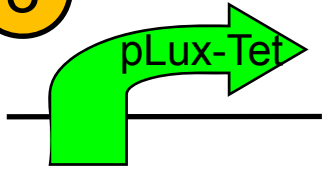


K176023 in  
pSB1A3  
Sequencing



K176024 in  
pSB1A3  
Sequencing

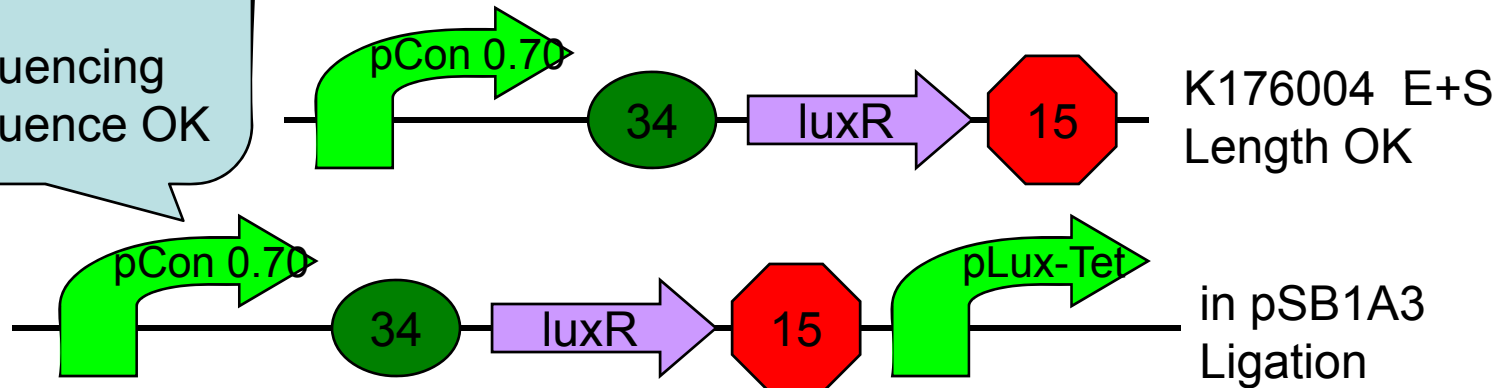
3



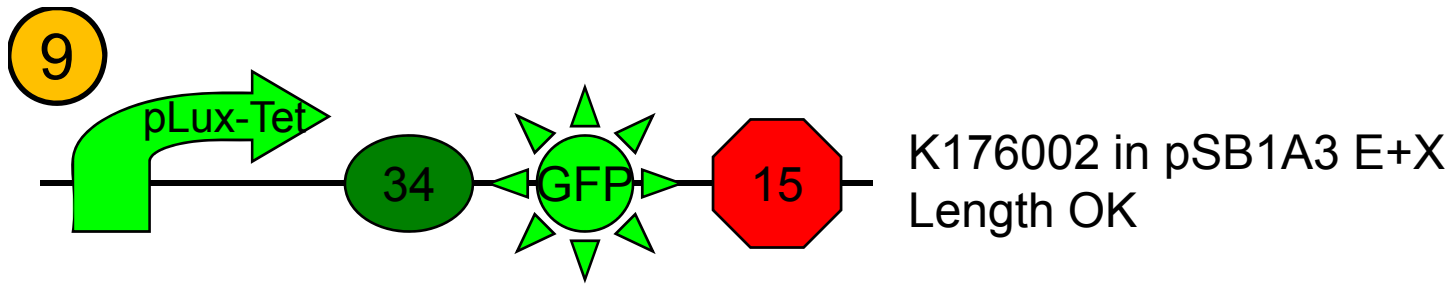
K176000 in pSB1A3 E+X  
Length OK

7.13: Ligation  
7.14: Colony PCR;  
Mini-Prep  
7.15: Sequencing  
7.18: Sequence OK

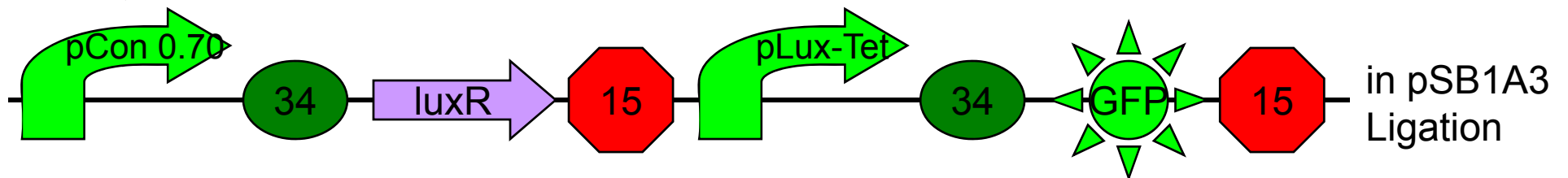
7.12: Digestion

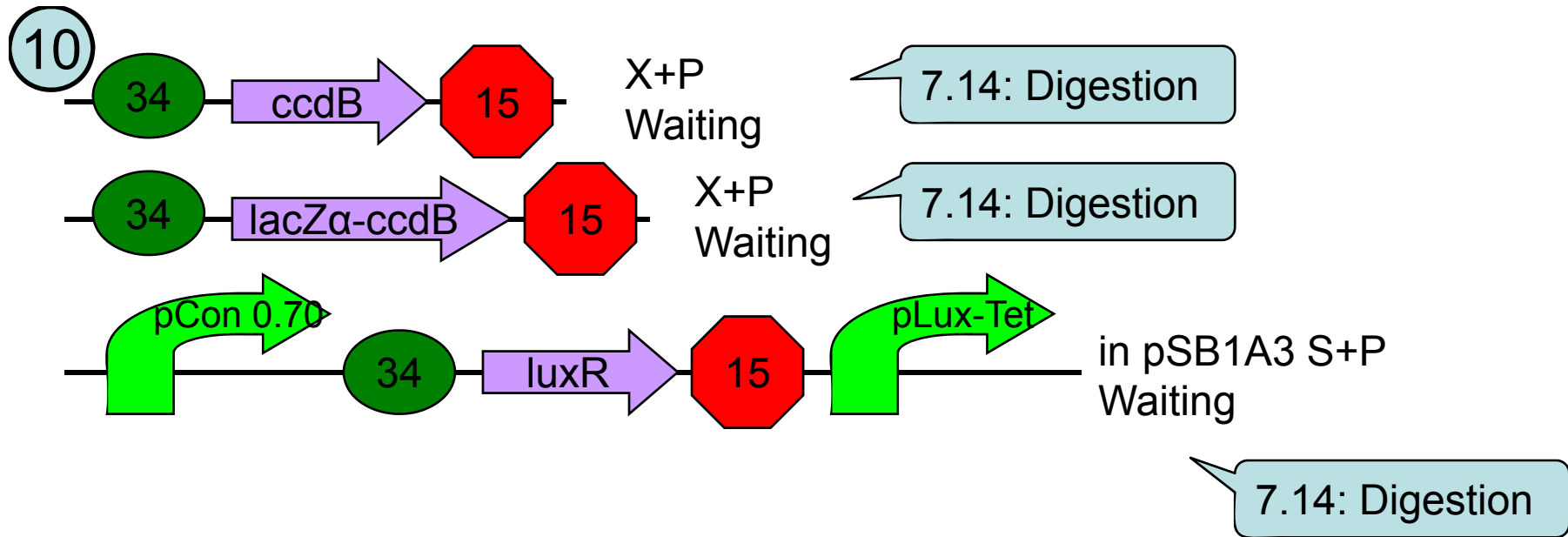




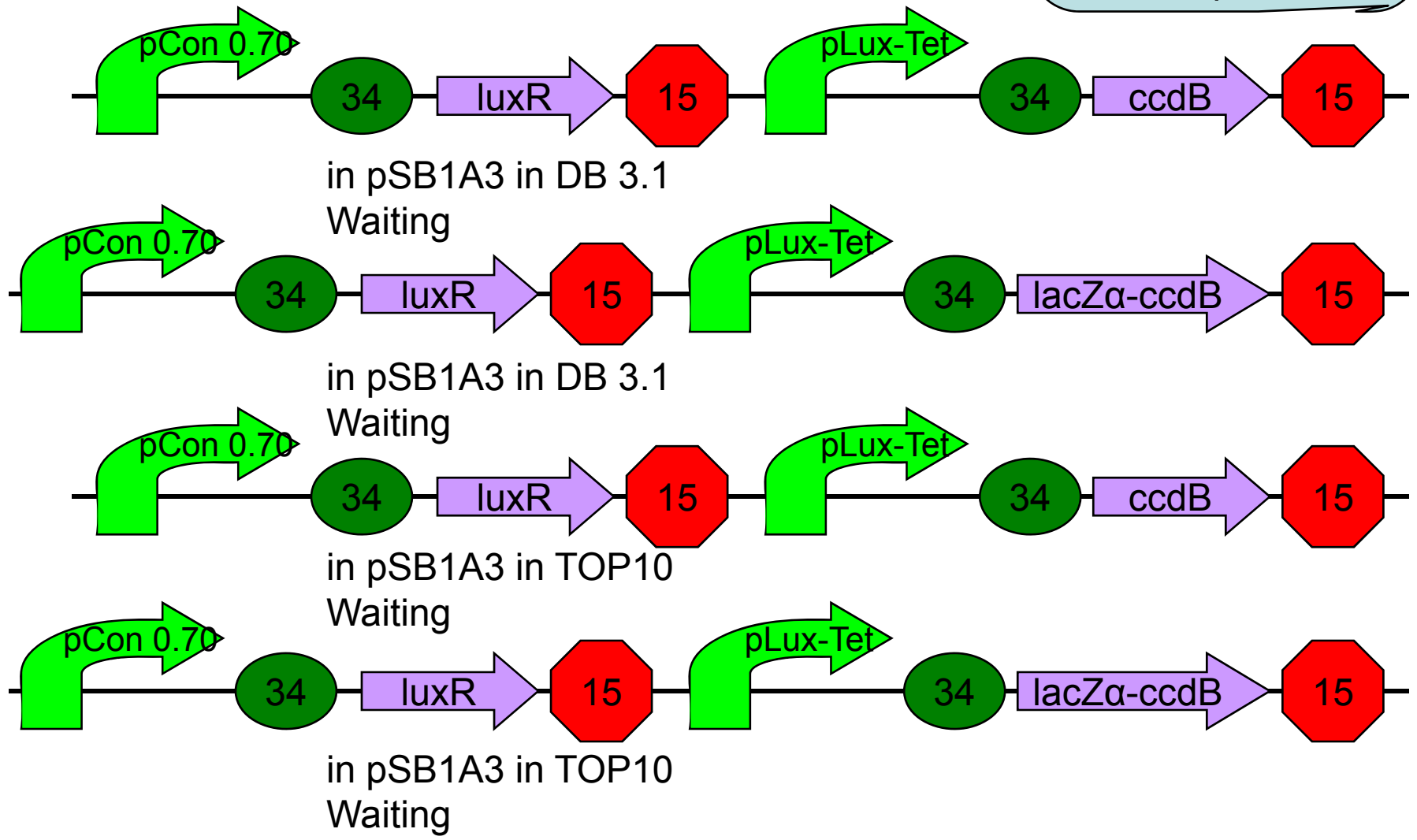


7.13: Ligation  
7.14: Colony PCR;  
Mini-Prep  
7.15: Sequencing  
7.16: Measurement  
7.18: Sequence OK

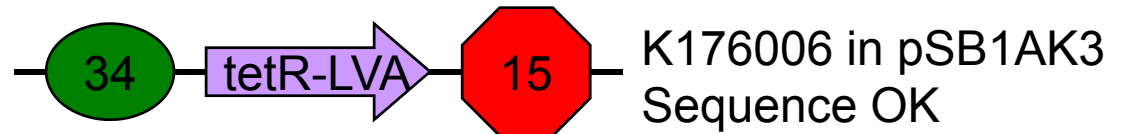
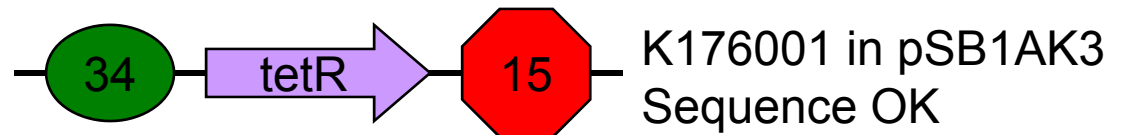
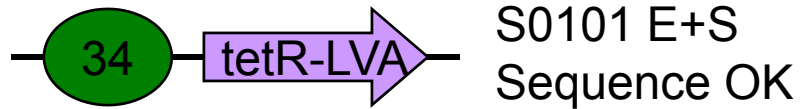
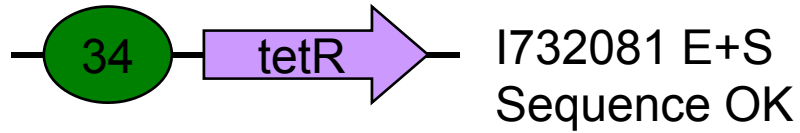
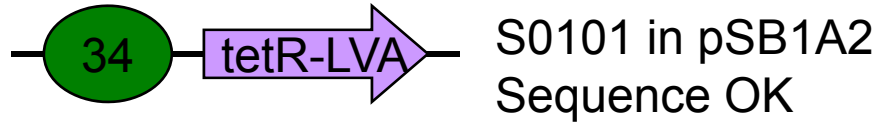
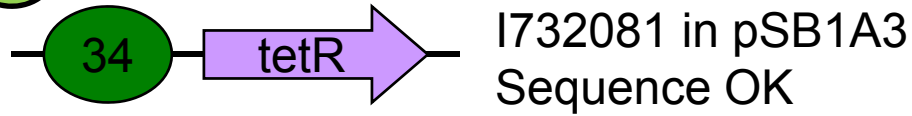




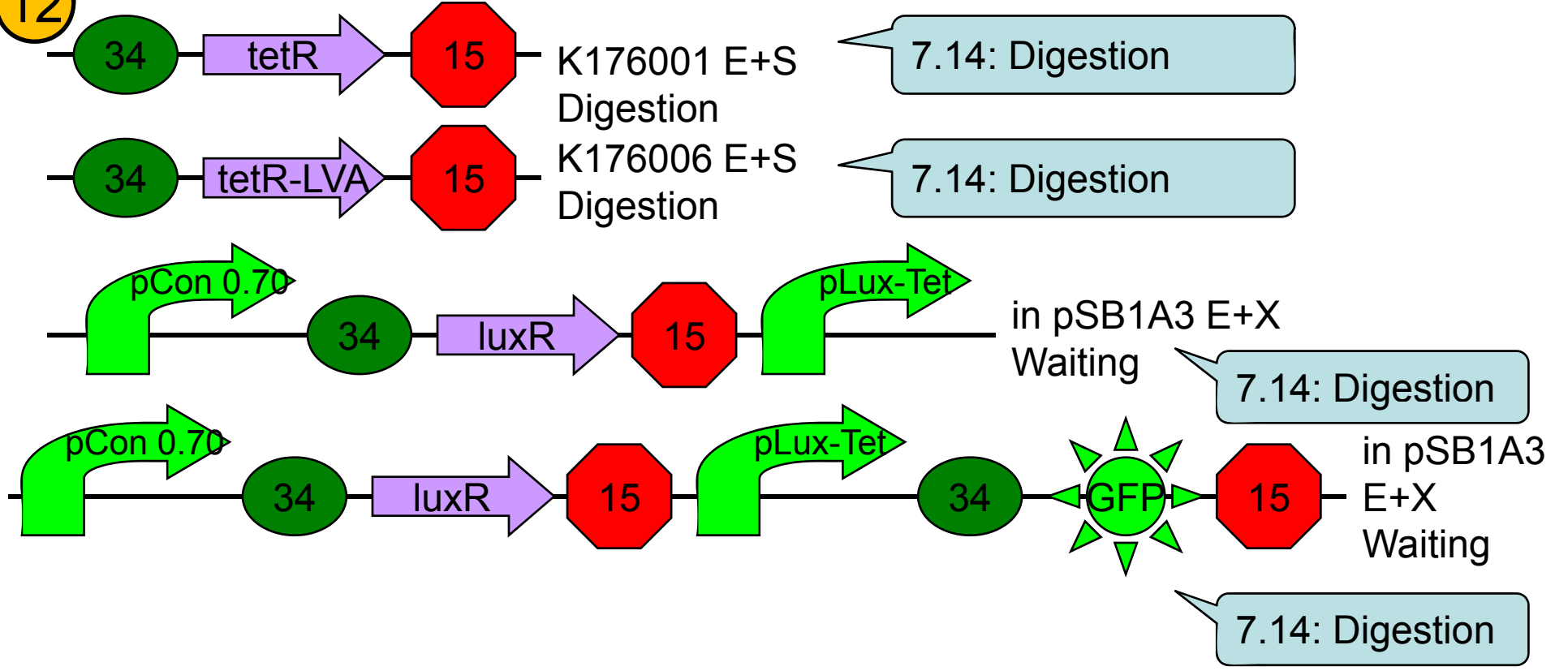
7.15: Ligation  
7.16: Colony PCR;  
Mini-Prep  
7.17: Sequencing  
7.18: Measurement  
7.20: Sequence OK



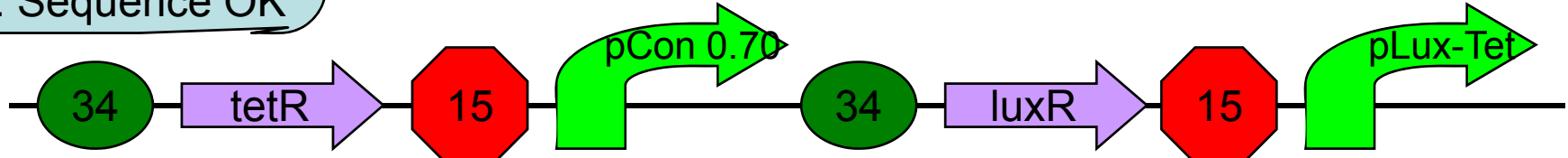
11



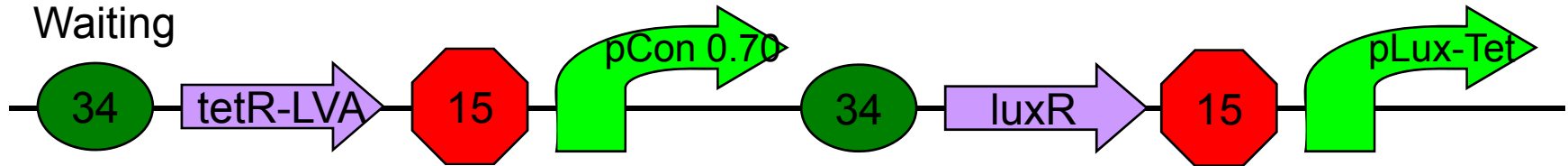
12



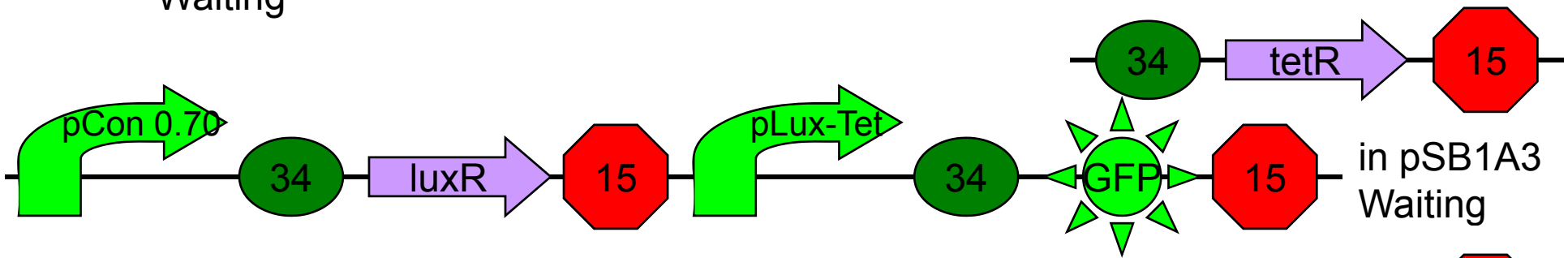
7.15: Ligation  
 7.16: Colony PCR;  
 Mini-Prep  
 7.17: Sequencing  
 7.20: Sequence OK



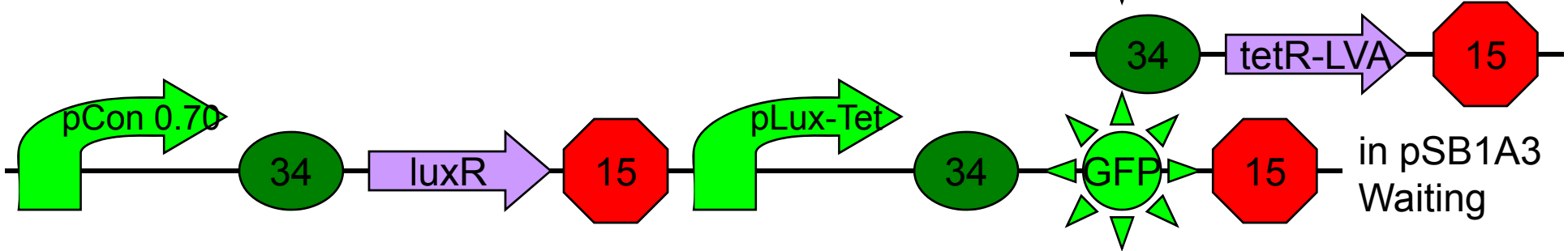
in pSB1A3  
 Waiting



in pSB1A3  
 Waiting

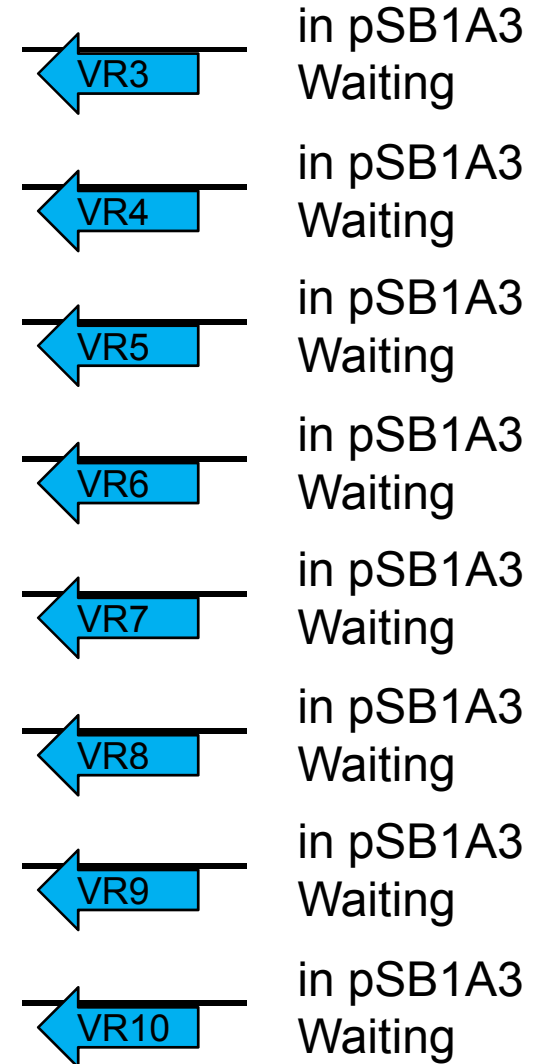
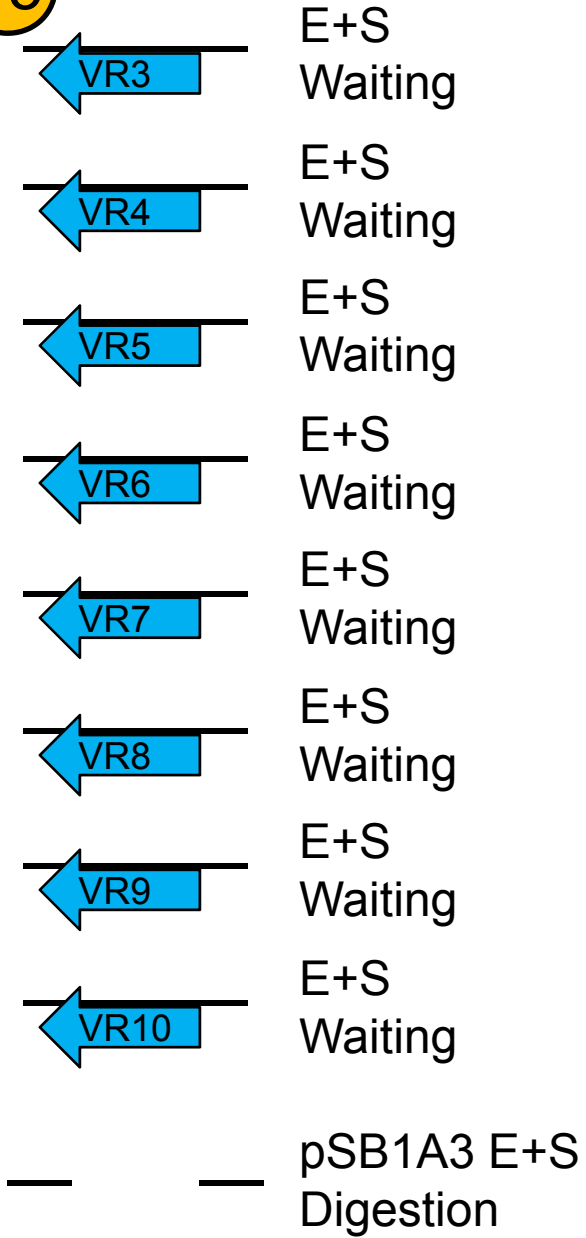


in pSB1A3  
 Waiting

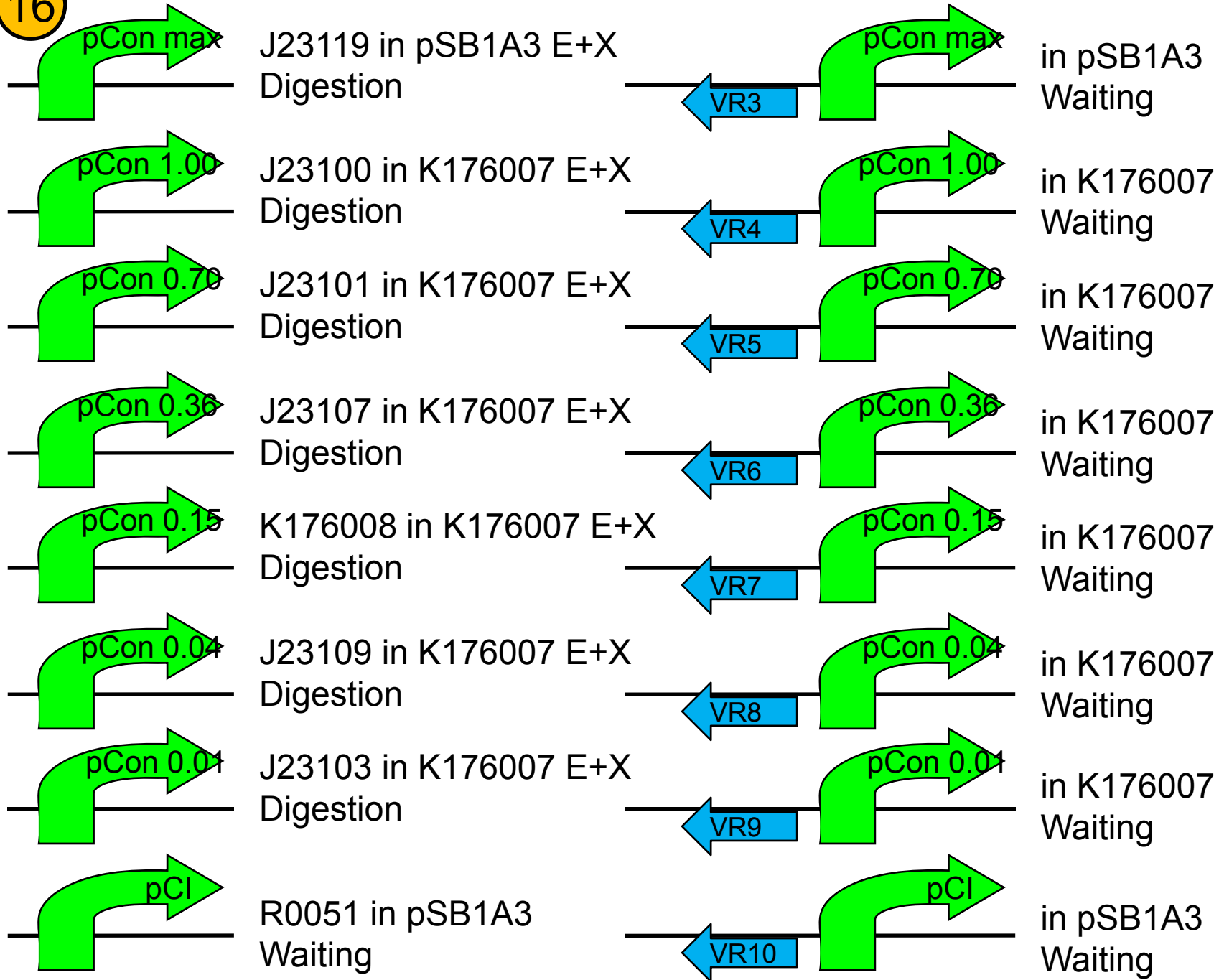


in pSB1A3  
 Waiting

15



16







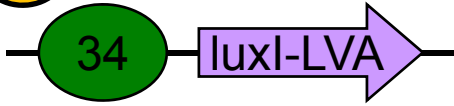








20



C0261 in pSB1A2  
Sequence OK

### Favorite USTC 2009 iGEM Team Parts

[Edit](#)

-?-	Name	Type	Description	Designer	Length
-----	------	------	-------------	----------	--------

### USTC 2009 iGEM Team Parts Sandbox

[Edit](#)

-?-	Name	Type	Description	Designer	Length
	BBa_K176000	Regulatory	pLux/Tet Hybrid Promoter: (LuxR+,TetR-)->PoPS	Danqian Liu, Chao Li, Hao Jiang	72
	BBa_K176001	Generator	PoPS->RBS+TetR(without LVA)+T	Chao Li,Danqian Liu,Hao Jiang	782
	BBa_K176002	Reporter	pLux/Tet(K176000)(LuxR+,TetR-)->RBS+GFP+T	Chao Li,Danqian Liu,Hao Jiang	955
	BBa_K176003	Coding	lacZalpha-ccdB coding sequence	Zongxiao He, Hao Jiang	480
	BBa_K176004	Generator	pCon max(J23119)->RBS+LuxR+T	Chao Li,Danqian Liu,Hao Jiang	979
	BBa_K176005	Reporter	pCon max(J23119)->RBS+GFP+T	Chao Li,Danqian Liu,Hao Jiang	918
	BBa_K176006	Generator	PoPS->RBS+TetR(with LVA)+T	Chao Li,Danqian Liu,Hao Jiang	840
W	BBa_K176007	Plasmid_Backbone	pSB1A3 with the suffix of J61002 (mRFP)	Hao Jiang, Danqian Liu, Chao Li	3026
	BBa_K176008	Regulatory	constitutive promoter family member J23115 actual sequence	Hao Jiang, Danqian Liu, Chao Li	35
	BBa_K176009	Regulatory	constitutive promoter family member J23107 actual sequence	Hao Jiang, Danqian Liu, Chao Li	35
	BBa_K176010	Translational_Unit	PoPS->RBS+ccdB->PoPS	Zongxiao He, Hao Jiang	324
	BBa_K176011	Reporter	pCon 1.00(J23100)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	918
	BBa_K176012	Reporter	pCon 0.70(J23101)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	918
	BBa_K176013	Reporter	pCon 0.36(K176009)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	918
	BBa_K176014	Reporter	pCon 0.15(K176008)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	918
	BBa_K176015	Reporter	pCon 0.04(J23109)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	918
	BBa_K176016	Reporter	pCon 0.01(J23103)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	918
	BBa_K176017	Reporter	pCI(R0051)(lambda CI-)->RBS+GFP+T	Chao Li, Danqian Liu, Hao Jiang	932
	BBa_K176018	Signalling	pCon max(J23119)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841
	BBa_K176019	Signalling	pCon 1.00(J23100)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841
	BBa_K176020	Signalling	pCon 0.70(J23101)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841
	BBa_K176021	Signalling	pCon 0.36(K176009)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841
	BBa_K176022	Signalling	pCon 0.15(K176008)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841
	BBa_K176023	Signalling	pCon 0.04(J23109)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841
	BBa_K176024	Signalling	pCon 0.01(J23103)->RBS+LuxI-LVA+T	Danqian Liu, Chao Li, Hao Jiang	841

# Measurement

- General Conditions
  - Medium
    - LB
    - M9
      - Minimal
      - Supplemented
    - EZ Rich Define
    - pH-buffered TBK
    - pH-buffered LBK
  - Temperature
    - 37°C
    - 30°C
    - 34°C
  - Pre-warm
  - Shake
  - Dilution
  - Wash



[http://openwetware.org/wiki/M9\\_medium](http://openwetware.org/wiki/M9_medium)

[http://openwetware.org/wiki/M9\\_medium/minimal](http://openwetware.org/wiki/M9_medium/minimal)

[http://openwetware.org/wiki/M9\\_medium/supplemented](http://openwetware.org/wiki/M9_medium/supplemented)

[http://openwetware.org/wiki/Neidhardt\\_EZ\\_Rich\\_Defined](http://openwetware.org/wiki/Neidhardt_EZ_Rich_Defined)

<http://www.genome.wisc.edu/resources/protocols/ezmedium.htm>

# GFP (PoPS)

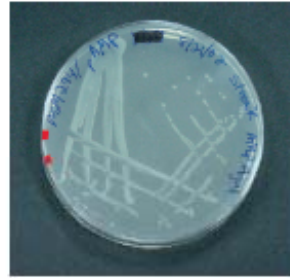
- Fluorospectrophotometer
- Plate Reader
- Flow Cytometer (FACS)
- Blotting
  - Northern
  - Western
- Realtime RT-PCR

- <http://partsregistry.org/Measurement>
- [http://openwetware.org/wiki/The\\_BioBricks\\_Foundation:Standards/Technical/Measurement](http://openwetware.org/wiki/The_BioBricks_Foundation:Standards/Technical/Measurement)
- [http://openwetware.org/wiki/Standardized\\_GFP\\_quantification](http://openwetware.org/wiki/Standardized_GFP_quantification)
- Engineering the interface between cellular chassis (Barry Canton PhD thesis)
- Applying engineering principles to the design and construction of transcriptional devices (Reshma P. Shetty PhD thesis)

**STEP 1:** Streak 3 plates



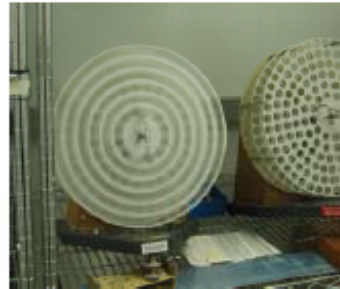
A: TOP10  
 B: BBa\_I20260  
 C: Your promoter!



**STEP 2:** Pick 3 colonies from each plate to start overnight cultures in Supplemented M9 Media at 37 C (9 tubes)



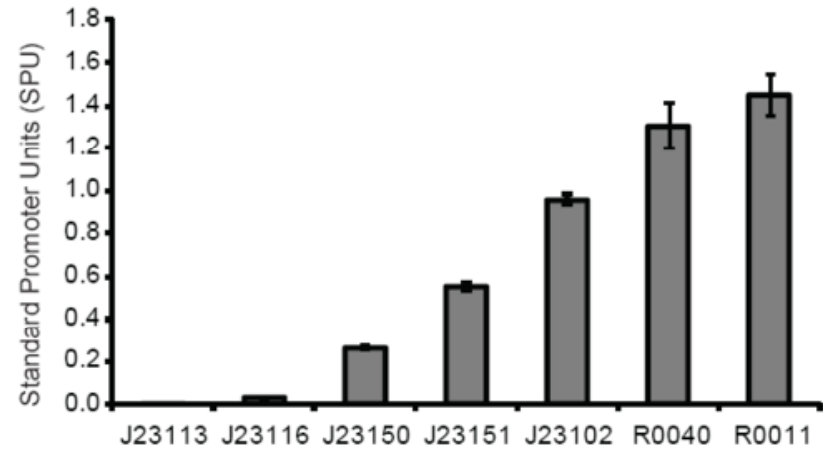
TOP10  
 BBa\_I20260  
 Your Promoter



37C

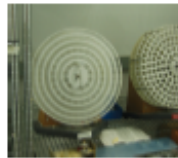
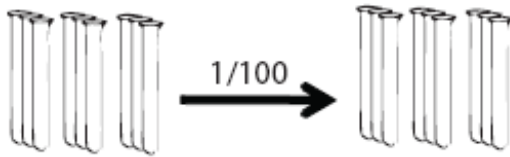


16 hours



**Standard Promoter Units**

**STEP 3:** Dilute 1/100 into fresh, pre-warmed media incubate at 37C (9 tubes)



37C

**STEP 4:** After 3 hours measure GFP and OD



3 hours



GFP

OD

**STEP 5:** After another half hour measure GFP and OD again



1/2 hour



GFP

OD

2006 Berkeley **J23100~J23119**  
 Reported activities of the promoters are given as the relative fluorescence of these plasmids in strain TG1 grown in LB media to **saturation**. See part J61002 for details on their use.

# AHL

- Rapid Screening of Quorum-Sensing Signal N-Acyl Homoserine Lactones by an In Vitro Cell-Free Assay
- Detection of N-acylhomoserine lactones in lung tissues of mice infected with *Pseudomonas aeruginosa*
- Detecting and characterizing N-acyl-homoserine lactone signal molecules by thin-layer chromatography
- Detection of N-acyl homoserine lactones using a *traI-luxCDABE*-based biosensor as a high-throughput screening tool
- On-line high-performance liquid chromatography-mass spectrometric detection and quantification of N-acylhomoserine lactones, quorum sensing signal molecules, in the presence of biological matrices
- Detection of quorum-sensing N-acyl homoserine lactone signal molecules by bacterial biosensors

# CcdB & LacZ $\alpha$

- Programmed population control by cell–cell communication and regulated killing
- A synthetic *Escherichia coli* predator–prey ecosystem
- LacZ $\alpha$ 
  - X-gal
  - ONPG
    - <http://parts.mit.edu/igem07/index.php/USTC/BetaGalactosidaseAssay>

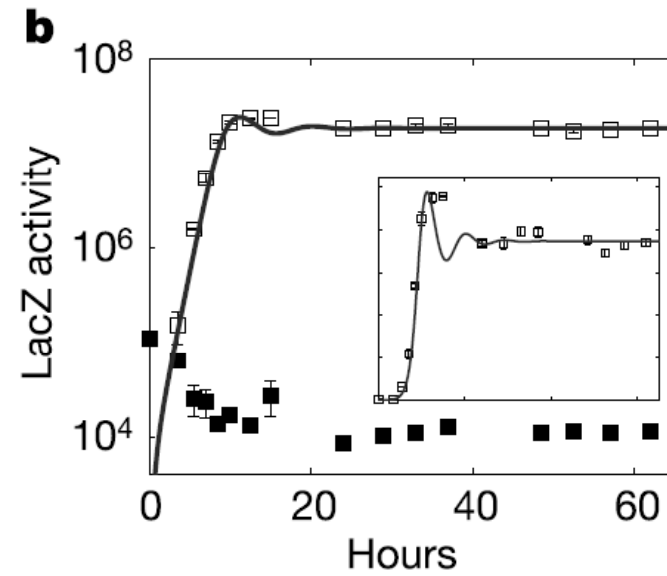
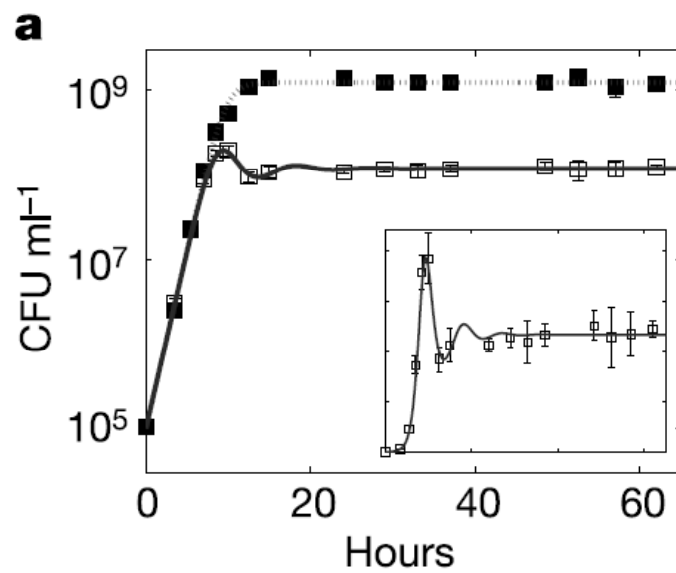
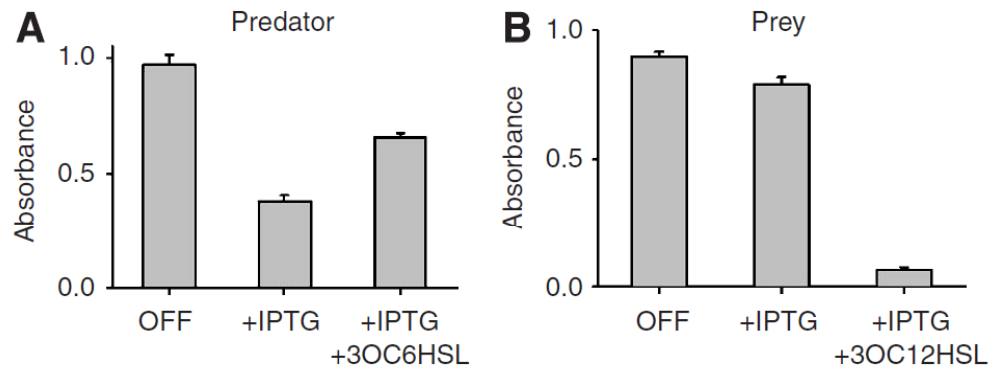
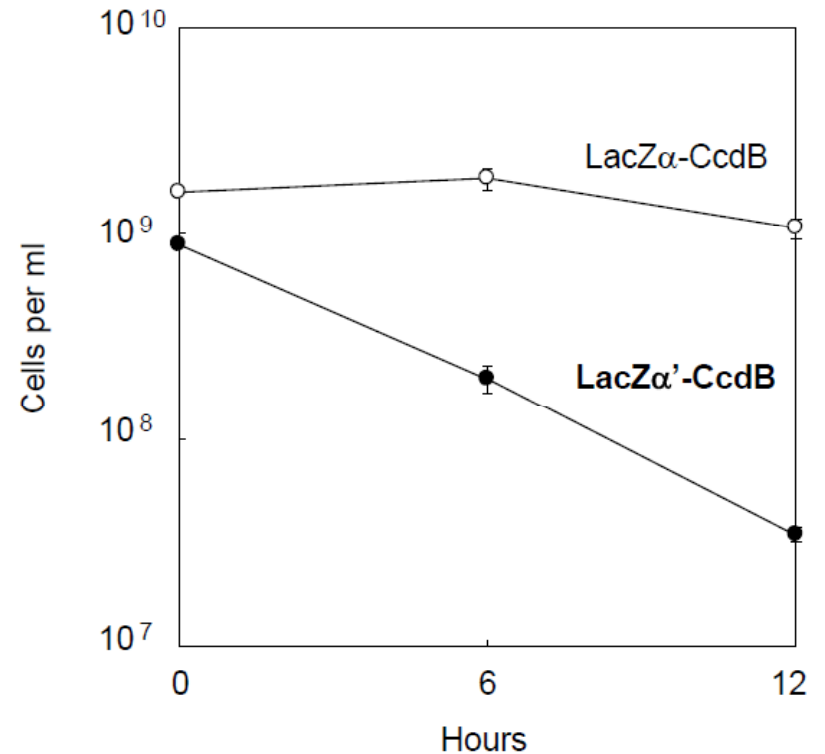


Figure S2:



**Figure 1** Individual growth behaviors (without interactions) of **(A)** predator and **(B)** prey cells in liquid media. For each condition, 6 ml LBK medium containing chloramphenicol and kanamycin was inoculated with a single bacterial colony and was divided into three 2 ml cultures: 'OFF' cultures contained no inducers, '+ IPTG' cultures contained 1 mM IPTG and '+ IPTG + AHL' contained 1 mM IPTG and 100 nM AHL, respectively. After 20h of incubation (light gray bars), optical densities (ODs) of these cultures were measured with a microplate reader (see Supplementary information). Error bars represent standard deviation of triplicate cultures.



# Wiki

- Team project description
- Notebook
  - Meetings
  - Lab Work
  - Sample Naming Sheets
- Other
  - Team
  - Project
  - Parts
  - Modeling
  - Human Practice





# 2009

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## Calendar of Events

### IGEM 2009 Calendar of Events

**Note:** Dates in grey have not been finalized yet. Make sure to check the calendar periodically for any changes!

- |                |   |
|----------------|---|
| 19 February    | IGEM 2009 registration opens  |
| 31 March       | IGEM 2008 registration closes; Team registration fee due  |
| 13 May         | DNA Distribution sent to teams <b>(target deadline; subject to change)</b>  |
| 16/17 May      | <a href="#">iGEM Workshop, MIT, USA</a>   |
| 1 June         | <a href="#">Visa invitation letter</a> requests due   |
| 20/21 June     | <a href="#">iGEM Workshop, Europe</a>   |
| 27/28 June     | <a href="#">iGEM Workshop, Asia</a>   |
| 15 June        | Preliminary team rosters due  |
| 1 August       | Team project descriptions due   |
| TBD            | <a href="#">Jamboree attendance fee</a> due   |
| TBD            | <a href="#">Request for variance</a> due (notice and description of any use of non-standard parts or devices schemes due) |
|                | <a href="#">Track</a> selection due   |
|                | <a href="#">Project abstracts</a> due   |
| TBD            | <a href="#">Team rosters</a> due  |
| TBD            | Project and part documentation due, including documentation for all medal criteria  |
|                | BioBrick Part DNA needs to be received by the Registry  |
| 30 Oct - 2 Nov | IGEM Competition Jamboree, MIT, USA   |



# USTC

## University of Science and Technology of China

[Home](#)[Team](#)[Project](#)[Parts](#)[Modeling](#)[Human Practice](#)[Notebook](#)

### Team:USTC/Notebook

#### Contents [hide]

[1 Team:USTC/Notebook](#)[1.1 Meetings](#)[1.2 Brainstorming](#)[1.3 Lab Work](#)[1.4 Sample Naming Sheets](#)

### Meetings

All the reports information, slides and audio records of our meetings are arranged here.

December	January	February	March	April	May
<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
June	July	August	September	October	
<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>M T W T F S S</b> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	

			30 31		
June	July	August	September	October	
<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>	
1 2 3 4 5 6 7	1 2 3 4 5	1 2	1 2 3 4 5 6	1 2 3 4	
8 9 10 11 12 13 14	6 7 8 9 10 11 12	3 4 5 6 7 8 9	7 8 9 10 11 12 13	5 6 7 8 9 10 11	
15 16 17 18 19 20 21	13 14 15 16 17 18 19	10 11 12 13 14 15 16	14 15 16 17 18 19 20	12 13 14 15 16 17 18	
22 23 24 25 26 27 28	20 21 22 23 24 25 26	17 18 19 20 21 22 23	21 22 23 24 25 26 27	19 20 21 22 23 24 25	
29 30	27 28 29 30 31	24 25 26 27 28 29 30	28 29 30	26 27 28 29 30 31	
		31			

## Brainstorming

- [2009-02-10](#)
- [2009-03-07](#)
- [2009-03-22](#)
- [2009-03-30](#)

## Lab Work

We chose to use [iPad](#) as our Electronic Lab Notebook. iPad is recommended on OWW [\[1\]](#).

Our work progress is also updated [here](#).

May	June	July	August	September	October
<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>	<b>M T W T F S S</b>
1 2 3	1 2 3 4 5 6 7	1 2 3 4 5	1 2	1 2 3 4 5 6	1 2 3 4
4 5 6 7 8 9 10	8 9 10 11 12 13 14	6 7 8 9 10 11 12	3 4 5 6 7 8 9	7 8 9 10 11 12 13	5 6 7 8 9 10 11
11 12 13 14 15 16 17	15 16 17 18 19 20 21	13 14 15 16 17 18 19	10 11 12 13 14 15 16	14 15 16 17 18 19 20	12 13 14 15 16 17 18
18 19 20 21 22 23 24	22 23 24 25 26 27 28	20 21 22 23 24 25 26	17 18 19 20 21 22 23	21 22 23 24 25 26 27	19 20 21 22 23 24 25
25 26 27 28 29 30 31	29 30	27 28 29 30 31	24 25 26 27 28 29 30	28 29 30	26 27 28 29 30 31
			31		

## Sample Naming Sheets

We chose to use [this wiki page](#) to manage samples. The names are generated with a program written by [Jian Zhan](#).



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# Instructional Videos

**Workshop videos:** Videos from the iGEM 2009 spring workshop @ MIT are available below for streaming and download, and higher quality downloads will follow shortly. You can also visit our [iGEM channel @ blip.tv](#).

## Welcome to iGEM



A short welcome and introduction to iGEM by Randy Rettberg

low high

## Navigating the Registry



Reshma and Randy discuss navigating through [partsregistry.org](#)

low high

## Introduction to Synthetic Biology



Tom Knight gives an introduction to parts based synthetic biology

low high

## Project Ideas



Reshma Shetty gives suggestions on how teams may want to come up with project ideas

slides low high

## Changes for iGEM 2009



Randy Rettberg discusses the changes that have taken place for iGEM 2009, the requirements for the teams, and judging the competition

low high

## Standard Assembly



Reshma Shetty shows how parts on the registry are designed for standard assembly

slides low high

## Promoters



Barry Canton discusses the promoter category of parts in the registry

low high

## Making and Adding Parts



Reshma and Meagan show how to make and add parts to the registry

low high

## Devices



Barry Canton discusses devices in the registry

## Favorites and Shipping Parts



Meagan Lizarazo shows how to make your parts "Favorites" and ship them



low high

using the registry



low high

### Measurements



low high

Barry Canton discusses the importance of measuring and documenting the parts on the registry

### 2009 Distribution, QC, and Sequencing



slides low high

Paul and Vinoo discuss an overview of the creation of the 2009 distribution and the quality control process. Randy discusses the sequencing tools on the registry.

### Software Tools Track



low high

Randy Rettberg discusses the software track for iGEM participants, as well as how software tools are integrated into the registry

### Safety in iGEM



screen ipod

"What safety precautions should my team be taking while participating in iGEM? Why is this important?"

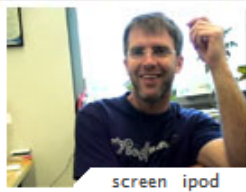
### Drew Endy: Defining Synthetic Biology



screen ipod

"Make it easier to build things. Define the things you are building with by using standards. Hide biological complexity with abstraction."

### Drew Endy: Believe in Synthetic Biology



screen ipod

"Why should you consider changing how you engineer biological systems from doing ad-hoc research to something that's a more scalable engineering framework?"

### Drew Endy: What is a Standard Biological Part?







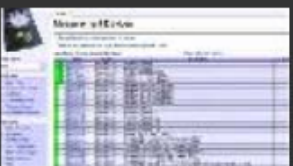







"What does it mean to have a Standard Biological Part - for example, a BioBrick-standard

Episodes Archive








[Back to show page ▶](#)

[Syndicate Show ▶](#)

 <p>iGEM 2009 Spring Workshop: MIT Tom's talk on parts based synthetic biology</p>	 <p>iGEM 2009 Spring Workshop: MIT Randy's Welcome Speech</p>	 <p>Safety in iGEM</p>	 <p>Jam07 - Beginnings and Beyond</p>
 <p>Jam07 - From Challenge to Triumph</p>	 <p>Interview with Alja Oblak from the iGEM06 Ljubljana Team</p>	 <p>Brown iGEM07 Team - Introduction to iGEM</p>	 <p>Jam07 - What can synthetic biology do for you?</p>
 <p>Jam07 - Calgary - "Developing A Genetic Printer"</p>	 <p>Jam07 - Caltech - "Selection for Infection"</p>	 <p>iGEM 2007 Jamboree Good Times</p>	 <p>iGEM 2007 Jamboree Dance Off</p>

Episodes Archive

Back to show page ▶  
Syndicate Show ▶

 <p>Jam07 - ETH Zurich - "educatETH E.coli System"</p>	 <p>tutorial 4.3 - Reviewing your part</p>	 <p>Tutorial 4.2 - Entering Part Sequence and Features</p>	 <p>Tutorial 4.1 - Adding and documenting a basic part</p>
 <p>iGEM Explainer 03 - Drew Endy: What is a Standard Biological Part</p>	 <p>iGEM Explainer 01 - Drew Endy: Defining Synthetic Biology</p>	 <p>iGEM Explainer 02 - Drew Endy: Believe in Synthetic Biology</p>	

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