

## 230714 Meeting Minutes

Attendees: Sarah Torres, James Linton, Nadia Suryawinata, Eva Kercmar, Kate Malecek, Ben Bekey, Jaasiel Alvarez, Manisha Kapasiawala, Milla Freeman, Ben Ben, Tasha Cammidge

**Drinks from Twinkle Tea!** We got boba from here as we thought it would have compostable cups (we were assured on the phone they were!) but, in reality, they were #5 plastic, which is not even recyclable in Pasadena! Sigh. We will keep looking for a good sustainable coffee place.

### Introductions ...

#### Green Labs Monthly Tip:

- Scientific products use a lot of packaging, from boxes, to instructions, to double wrapping for sterile products, to shipping boxes with padding. Here are a few things to consider when addressing packaging waste:
  - o Consolidate what you're buying from different suppliers into one, or consolidate the number of times you place an order from a particular supplier.
  - o Designate an employee to handle orders, whether it's one person who places all orders with all suppliers, or a designated person for each supplier.
  - o If applicable, consolidate orders with neighboring labs.
  - o If you have the space to store extra consumables, buy in bulk to reduce shipments.
  - o Right-size your purchases. For example, if you only need 50ml of a reagent for a set of experiments you're planning, rather than buying a 1 liter bottle, buy the 100ml bottle. The bottle is smaller, and you'll end up with less waste if you don't use all of that chemical.

### Updates!

- Welcome to a new Certified Green Labs
  - o Get CERTIFIED TODAY! To get certified, finish the easy, 30-minute [Green Labs Certification](#) and submit it to [sustainability@caltech.edu](mailto:sustainability@caltech.edu).
- -70°C/-80°C Comparison Pilot
  - o From Lightning Event - Manisha Kapasiawala
    - Collect samples from several interested labs
    - Determine a robust way to compare samples
    - Store in both a -70°C and a -80°C and compare over multiple years
    - Gradinaru lab has a -70°C?
    - From last meeting
      - JL: he raised this idea with David Warren at the BBE event, we could present the data to the community to convince them with data, using machines with similar ages and same location
      - KM: Jesse Flores may have ability to look at tracking to account for blips in temperature
      - NS: Maz lab would be interested in supplying samples
      - JL: could use sterlings in Freezer Farm (TC, JL, and NS offer their -80s)

- JL/KM: could keep samples in -20 for a control, use a TX/TL control, do protein, DNA etc, every 6 months take a sample and test it, and just extrapolate data from there
  - We moved on to add to the Drive document
    - Testing
      - Need controls of things that will fail
      - Ask about timing for failure protection
      - Schedule testing schedule for samples (some once a month for 6 months, once in 6 months, and once on year) depending on sample type
      - Include results for 6 months tests in 2024 second quarter newsletter
      - Possibly work into a publication for lab managers or something, help convince PIs, but political
    - Series of magnets or posters for advertisement
    - Make a figure for cost savings on website
    - Ben Bekey found resources online that he will share with group
      - (TC thinks it was this)
    - TC will share resources to group and ask that folks continue to plan out the project so it can be underway by August?

Lab	Samples	Timeline	Confirmation Tests
Elowitz	Protein (stored at -80)		Binding on reporter cell lines
Elowitz	Glycerol stocks (perhaps several samples for freeze-thaw)		Plate same volume from same prep for each condition
Elowitz	Cell lines (slow freeze) with replicates (4 for each condition)		Thaw and count viability
Murray	Cell lysate		TX/TL assay
Murray	DNA		TX/TL assay
Sternberg	Worms samples		
Mazmanian	Fecal samples		Sequenece
Prober Lab	Competent cells (perhaps several samples for freeze-thaw controls, do one tube no thaws for 6 months, one tube	One tube every 6 month for 6 months and then after 6 more months, one tube at 6 months	Plate on LB and count, could transform

	thaw every month for 6 months)	and one year only, one tube at one year only	
Karethikeyan	Metabolites? DNA/RNA, soil samples, environmental samples? Kept at -70		
Beacon	Kept at -70, different brand than Sterlings		

- Lomi Composter project update
  - o 60 gallons (200 L) of food waste turned into 25 gallons (95 L) of compost!
    - Second drop off beginning of July
    - New signage posted today (or when newsletter comes out)
  - o Ben Ben asked about who knows about it, perhaps doing a workshop,
  - o Nadia: lab managers coordinate, could ask LM to advocate for better kitchen usage
    - - TC: could ask BBE to advocate for them
  - o Ben Ben: carbon banking for composting dashboard, competition between floors
    - TC suggested it could be a competition between floors or something to encourage engagement
    - Sarah: over a month which floor makes the most gets donuts and move the poster for the winner each month
  - o Revisited the idea of having the Lomi on a table by the garbage cans... TC will look into
    - James: don't want to be at mercy of one person who doesn't want it, make it more democratic, ST agreed
  - o Nadia: reiterated we should include competition at lab meeting, disappointed in the spaces right now, helping custodians etc
  - o ST: ask Joan about updates on lunch spaces meeting in Chen
- Pipette Tip Box recycling project
  - o More information below that we did not have time for
  - o Ben Bekey asked:
    - How do we know where our trash goes?
      - TC: We will follow up with Max and contact company to get more information on this
    - Why don't we use terracycle?
      - TC: we have investigated previously and it is too expensive, TC will send slide presentation (from a presentation to the purchasing department) to the group with this math and information
      - TC: perhaps if this is something Ben Bekey is interested in he could pursue?
- Ben Ben:
  - o Other companies we can look into for other kinds of projects:
    - motin company , bioremediation – convert cardboard into mushrooms – Ben Ben will send us information, metabolic studio workshops at farmer's market

- Events
  - Ice cream social was super fun!
    - Great work to all certified labs! Thanks to all those who attended and made the event a huge success!
    - Raffle winner was Leslie from Elowitz lab!
  - WiBBE event in Fall?
    - Beach cleanup?
  - Pilot program Lightning Talks Event in November?
  - Green Labs Certification push for October (Halloween par-tay for certified labs)?
    - OR should we make it a general call for certification for the end of the year , and have the push be centered around Earth Day in April with signage going up in January
  - Lab Cleanup Event
    - When do we want to hold this?
      - TC: no time for a good discussion, will bring it up at next meeting
      - Ben Bekey brought up that Stanford has a yearly lab exchange (equipment put out on the lawn and exchanged)
        - JL: mentioned this might be difficult here since we have all sorts of regulation on how equipment is disbursed, but we can see if this is something labs want
    - Every lab RSVPs by Sept 18 (Oct 23)
    - Could make a list of chores for labs to use
    - Resources available like magnets for freezer cleanout or inventory google sheets
      - EHS and Biosafety can help design it and participate where they can
      - BBE could provide garbage bins outside each building
      - BBE could have extra -20s etc for freezer defrosts
    - Each participating lab will provide pictures of their cleanup by midnight Sept. 26 (Oct 31) to be eligible for lunch on Sept. 27 (Nov 1)
      - Prizes will be given for biggest before and after difference, and for the “weirdest thing found”
      - Labs can also submit the “weirdest thing found” pictures for a prize
    - Sponsors for the event? USA Sci?
    - Lunch will be pizza (all vegetarian options!)
- Samples:
  - Polycarbin tips
  - Biobased tubes from Eppendorf
  - Biodegradable gloves from Thermo
    - Do we want these in the stockroom?
  - Do people like them? Feedback?
    - GS: suggested we could also get samples of reusable reservoirs from USA Sci, you keep the base and replace only the reservoir part, it is recyclable, Trinity is able to give bulk pricing, called the [Channel Mate](#)

### For next time

- Certification
  - o Takes ½ hour
  - o Very simple!
  - o See <https://greenlabs.caltech.edu> for the form
  - o Get a plaque!
  - o Green Labs will give you bins and signage for your lab!
- Photos!
- Work on Action Plan
- Slack?
- Anything Else?

### **Next Meeting August 11th 12pm-1:30pm Chen 240** **Bring a friend and get a RocketBook!**

### Did not get to this meeting but wanted to give an update for the minutes anyway:

- Pipette tip box recycling project
  - o Vijaya Kumar and Trinity Dorger, in two months:
    - 105 gallons (400+ Liters) of plastic!
    - Also looking at other vendors to see if they will accept the flexible plastics
    - Need to separate out clear and rigid plastics?
- Grenova Pilot
  - o Kate Malecek
    - Tip washer for the campus integrated with a liquid handler
- Sticker Resources
  - o Only for Green Labs Certified labs
  - o Stickers
    - Can order stickers through us and we will print them and drop them off!
    - Three sizes (but fully customizable) and three colours/messages (1", 1.5", 2")
    - Help encourage behavioural changes
  - o Recycling bins
    - "slim jim" style
  - o Other resources planned like freezer cleanout signage, coming soon!
- Newsletter
  - o Pilot program
  - o Update on Lomi composter project – update language (include "dirt" so there is less confusion)
  - o Update on pipette box recycling program
  - o Resources (including stickers and recycling signage) (signage at end of notes)
- Other project updates?

## Restaurant Guide Work

- Anything else we should include?
  - o Each person/team could take a restaurant and finish the entry
    - Sustainability of the food
    - Sustainability food containers and utensils
    - Other pertinent information (woman- or POC-owned, ethically sourced food)
    - Ease of ordering (do they use Grubhub etc)
    - Catering options for larger events
  - o Also want to write a blurb for the beginning, including how to run a sustainable event, what to look for in sustainable restaurants etc
  - o Can add your own restaurant or start filling out the coffee/breakfast Guide
  - o
- Everyone opened up the doc and start updating it
- Example:



Located on Lake Avenue


[Veggie Grill](#) is one of the largest 100% plant-based restaurants in the nation. Their plant-based mission came from the knowledge of inhumane methods used in factory farming in the meat and dairy industry. They aim to introduce more plant-based foods to the community and bring awareness about the health benefits of a plant-based diet.

Hours: [Here](#).

Sustainability of food containers and utensils: Option for no utensils, some compostable containers.

Ease of ordering: [Postmates](#), [Doordash](#), [Online](#), Phone (626-535-9561), curbside pickup.

Catering Options: [Here](#) (order at least 4 hours notice, minimum of \$125).



# OCTOBER 24-31


## ANNUAL LAB CLEAN UP WEEK

Competition: **OCTOBER 24-31**  
 Lunch Party: **November 1<sup>st</sup>**  
 Who: **CALTECH LABS**


Participants will compete to clean their labs top to bottom by cleaning out freezers, organizing storage spaces, and taking inventory of lab supplies!

Each participating lab will provide pictures of their cleanup by **midnight October 31st**. Prizes will be given for the biggest before and after difference, and for the "weirdest thing found".


**The day after the competition ends, Green Labs is inviting all participating labs to have a sustainable lunch on us!**



RSVP your lab by **October 23<sup>rd</sup>**  
All Labs are welcome!




Or check our website for more information about this event or find Green Labs tips to make your lab more sustainable!



Download the Certification Form today!

Sustainably printed on 100% recycled paper!



# SEPT. 19-26


## ANNUAL LAB CLEAN UP WEEK

Competition: **SEPTEMBER 19-26**  
 Lunch Party: **SEPTEMBER 27<sup>th</sup>**  
 Who: **CALTECH LABS**


Participants will compete to clean their labs top to bottom by cleaning out freezers, organizing storage spaces, and taking inventory of lab supplies!

Each participating lab will provide pictures of their cleanup by **midnight September 26th**. Prizes will be given for the biggest before and after difference, and for the "weirdest thing found".


**The day after the competition ends, Green Labs is inviting all participating labs to have a sustainable lunch on us!**



RSVP your lab by **Sept. 18<sup>th</sup>**  
All Labs are welcome!



Or check our website for more information about this event or find Green Labs tips to make your lab more sustainable!



Download the Certification Form today!

Sustainably printed on 100% recycled paper!




**IS CHALLENGING YOU:**

# GREEN LABS CERTIFY YOUR LAB BEFORE FRIDAY, OCTOBER 6TH!

**If your lab is Green Labs Certified by FRIDAY, OCTOBER 6<sup>th</sup>, Green Labs is inviting YOUR LAB to have a SPOOKY TREAT and enter a fun RAFFLE at a top secret location only given to those most excellent and certified green labs.**

**Your lab will also get a Certified Green Labs Plaque!**



Download the Certification Form today!  
 Date: **Top Secret**  
 Location: **A secret only given upon certification**  
 All Certified Labs are welcome!

Start your Green Labs Certification today!



Or check our website for more information about this event or find Green Labs tips to make your lab more sustainable!

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# NOV. 30TH

## GREEN LABS CERTIFICATION CHALLENGE

Date: **FRIDAY, NOVEMBER 30<sup>th</sup>**  
 Who: **CALTECH LABS**

Certified labs will be rewarded with a Certified Green Labs Plaque, and access to exclusive events and swag (including free recycling bins and efficiency signage and stickers).

**If your lab is Green Labs Certified by FRIDAY, NOVEMBER 30<sup>th</sup>, Green Labs is inviting your lab to have a tasty treat and enter a fun raffle at a top-secret location only given to those most excellent and certified green labs.**



Download the Certification Form today!  
 Green Date: **Top Secret**  
 Green Location: **Top Secret**  
 All Certified Labs are welcome!

Start your Green Labs Certification today!



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## STYROFOAM RECYCLING GUIDE

Follow EH&S Guidelines for biohazardous, radioactive, chemical, and electronic waste

ONLY CLEAN, WHITE #6 EPS FOAM




PLEASE DO NOT INCLUDE:

  
TAPE

  
PACKING PEANUTS

  
FOAM INSERTS

  
STYROFOAM CUPS OR PLATES

  
PACKING LABELS

  
CARDBOARD OR INSULATION

  
ICE PACKS



Check out the Green Labs website for more tips and tricks to make your lab more sustainable!



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