

The Grand Cookie Challenge



An experiment in doing experiments from a LemBix Lab meeting in 2009. At least we got to eat the cookies

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Barriers to SCI treatments



**National Institute of
Neurological Disorders and Stroke**
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Facilities of Research Excellence in Spinal Cord Injury

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Objective

Laboratories around the U.S. and the world are developing spinal cord injury (SCI) research programs and testing novel therapeutic strategies to promote recovery after SCI. It is critical that standard methods are used so that the results from these laboratories be comparable, and translatable to clinical testing. NINDS Facilities of Research Excellence in Spinal Cord Injury (FORE-SCI) contract sites were established to address key factors that have hampered the translation of research on exciting new therapeutic strategies from the laboratory to clinical trials. FORE-SCI sites (1) provide hands-on training to researchers new to SCI research on best practices in the field in order to promote consistency of procedures and animal care across laboratories; (2) attempt to replicate novel experimental therapeutic studies in SCI models, and to compare the efficacy of different treatments in a standardized environment with a minimum of variability in surgery, animal care, outcome evaluation and cellular analyses. In its first iteration, NINDS FORE-SCI sites also supported advance training and collaborative studies, as well as the establishment of novel methods for evaluating recovery in experimental models of spinal cord injury.

Barriers to SCI treatments

- Based on a series of workshops, NINDS identified several unmet needs in the field of SCI and, in 2002, developed contracts for FORE-SCI site for training in SCI research methods, replication studies, and development of improved outcome assessments. A report published in 2005 by the Institute of Medicine emphasized the need for continuing instructional and collaborative opportunities in SCI research, specifically citing the training and center supported by the NINDS contract. **It is generally agreed that independent replication of preclinical studies is a critical need.** Three of the FORE-SCI contracts, therefore, were recompeted in 2008.
- Identified barriers to translation include: **First, novel and promising results from one laboratory have not been confirmed by replication in other laboratories, or in other model systems.** This inability to confirm potentially important outcomes with confidence has prevented new approaches from moving forward to clinical studies. **Experience to date demonstrates the difficulty in replicating promising results a number of published reports¹, bearing out the need for these demanding studies.**

The Fuzzy Recipe



Materials

- 2 $\frac{1}{4}$ cup of flower
- 1 tsp baking soda
- 1 tsp salt
- 2 sticks of soft butter
- $\frac{3}{4}$ cups of granulated sugar
- $\frac{3}{4}$ cups of packed brown sugar
- 1 tsp vanilla extract
- 2 large eggs
- 2 cups of toll house semi-sweet chocolates
- 1 cup of chopped nuts

Duh – What kind of Nuts?



Procedure 1

- Preheat oven to 375 F
- Combine flour, baking soda & salt
- Beat butter, sugar and vanilla in large mixer bowl until creamy
- Add eggs, one at a time, beating well after each
- Gradually beat in flour
- Stir in morsels and nuts

To Convection or to Not Convection?



Baking Soda? ooops



To Sift or To Not Sift?



The Mixer

Kitchen Aid

Which mixing
tool??



Procedure 2

- Drop by rounded tablespoons onto ungreased baking sheet
- Bake for 9-11 minutes or until golden brown
- Cool on baking sheets for 2 minutes
- Remove to wire racks to cool completely

What kind of cookie sheets?





Batch 1



Batch 2 – running a bit hot





- A **domain expert** or [subject matter expert](#) is a person with special knowledge or skills in a particular area of endeavor. An [accountant](#) is an expert in the domain of [accountancy](#), for example. The development of [accounting software](#) requires knowledge in two different domains, namely accounting and software. Some of the development workers may be experts in one domain and not the other. The term *domain expert* is frequently used in [expert systems](#) software development, and there the term always refers to the domain other than the software domain.

Arrival of the Domain Expert



Domain
Expert did
post-doc
training with
Professor
Pauline



Convection
ovens run hot

Lower the
temp by 25°

350 F



Problems
with the
Process!



The Final Product



ooops



What do Yours Look Like?

- More importantly,
how do they
taste???



Lessons?

- More details please
- QC the materials first
 - don't use old baking soda
- Follow the procedure!
 - don't use baking powder when it calls for baking soda!
- Talk to the domain experts first
 - butter versus margarine
 - double nuts
 - Peanuts? Really Andrea? In Chocolate chip cookies? Yuck.
 - double chocolate chips
 - granulated versus packed brown sugar
- Outcome measures????

C is for Cookie, that's good enough
for me



A lab group exercise
From the LemBix Lab
2009. At least we got
to eat the cookies at
Lab meeting
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