

Open Drug Discovery Teams

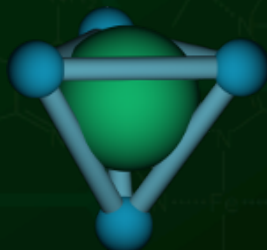
<http://molmatinf.com/oddt.html>

Dr. Alex M. Clark

Dr. Sean Ekins

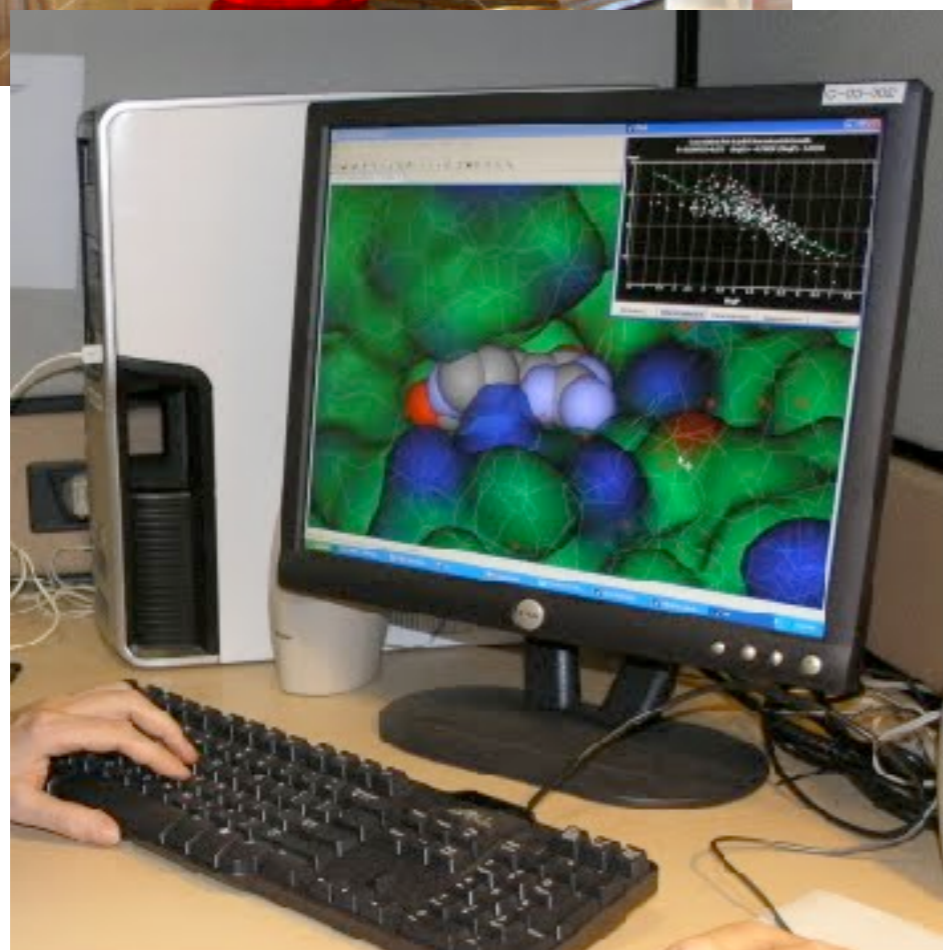
April 2013

Hacking Health Montréal



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and Collaborations in Chemistry

Background



Motivation

- Early 2012: Sean Ekins met Jill Wood at a rare disease conference
- Mother of a child suffering from *Sanfillipo Syndrome*
 - Incident rate: 1 in $\gg 100,000$
- Had to become a *scientist, doctor, entrepreneur* and *venture capitalist* to accelerate a cure



Jonah's Just Begun
Phoenix Nest Biotech
phoenixnestbiotech.com

- Finding information shouldn't be so hard...

The Problem



- Drug discovery research is very asymmetric
- Diseases with many wealthy sufferers get most of the attention: great return on investment

>7000 rare diseases

- Rare diseases? Neglected markets?
- Resources are extremely tight
- Cannot afford **not** to share research

The Solution

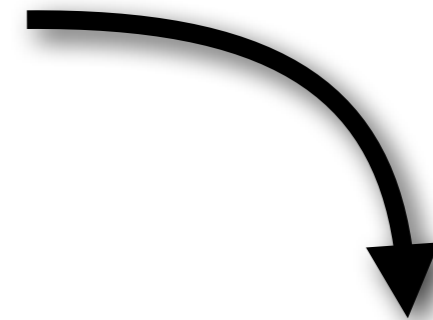
- government
- pharma
- charity

funding



- academics
- startups
- foundations

publication



- literature
- blogs
- open science

Open Drug Discovery Teams

- content aggregation
- research communities



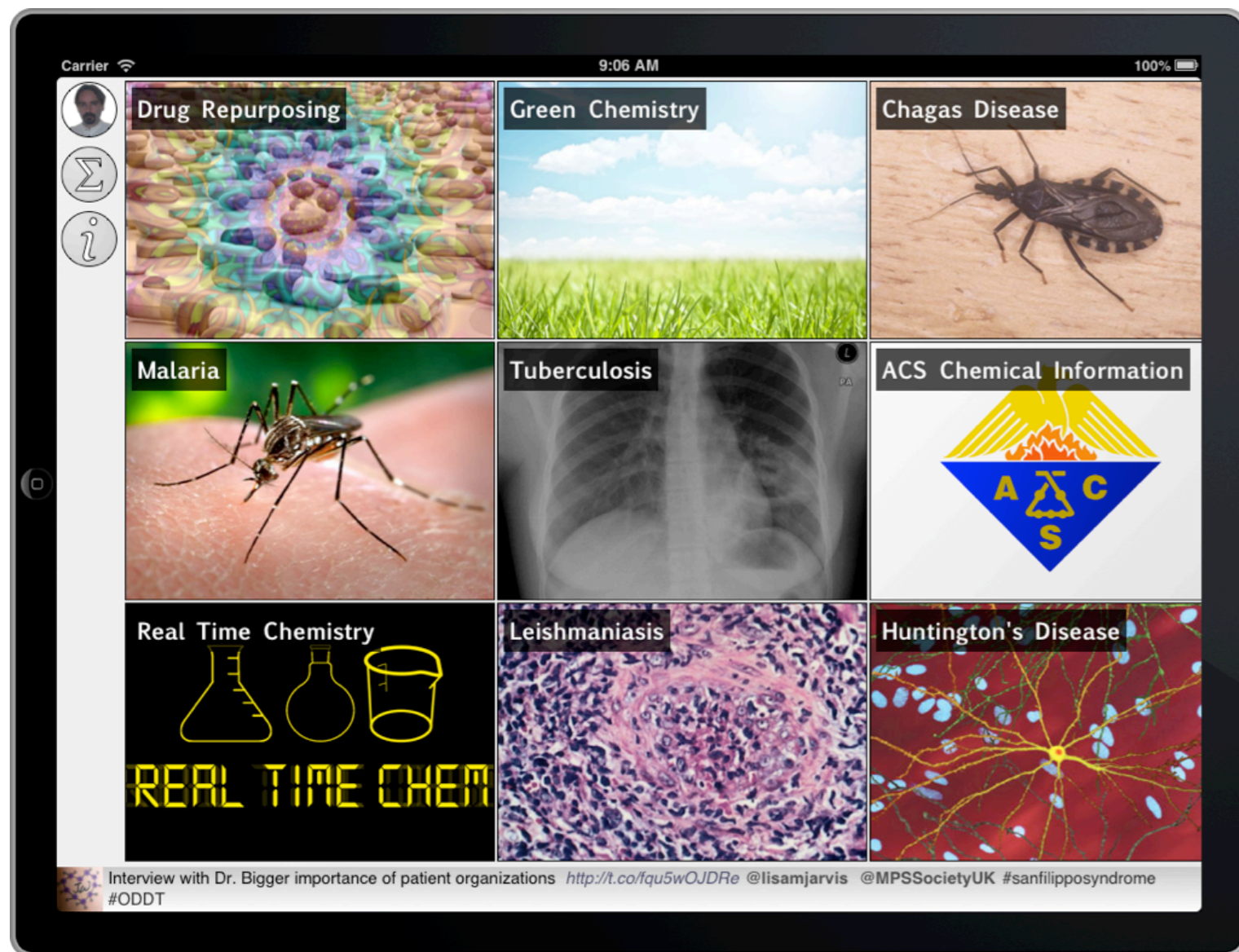
Twitter

#hashtags



RSS Feeds

The App: Open Drug Discovery Teams



- iPhone, iPod, iPad
- Free!

<http://oddt.net>

#sanfilipposyndrome

#tuberculosis

#leishmaniasis

#greenchemistry

#hivaids

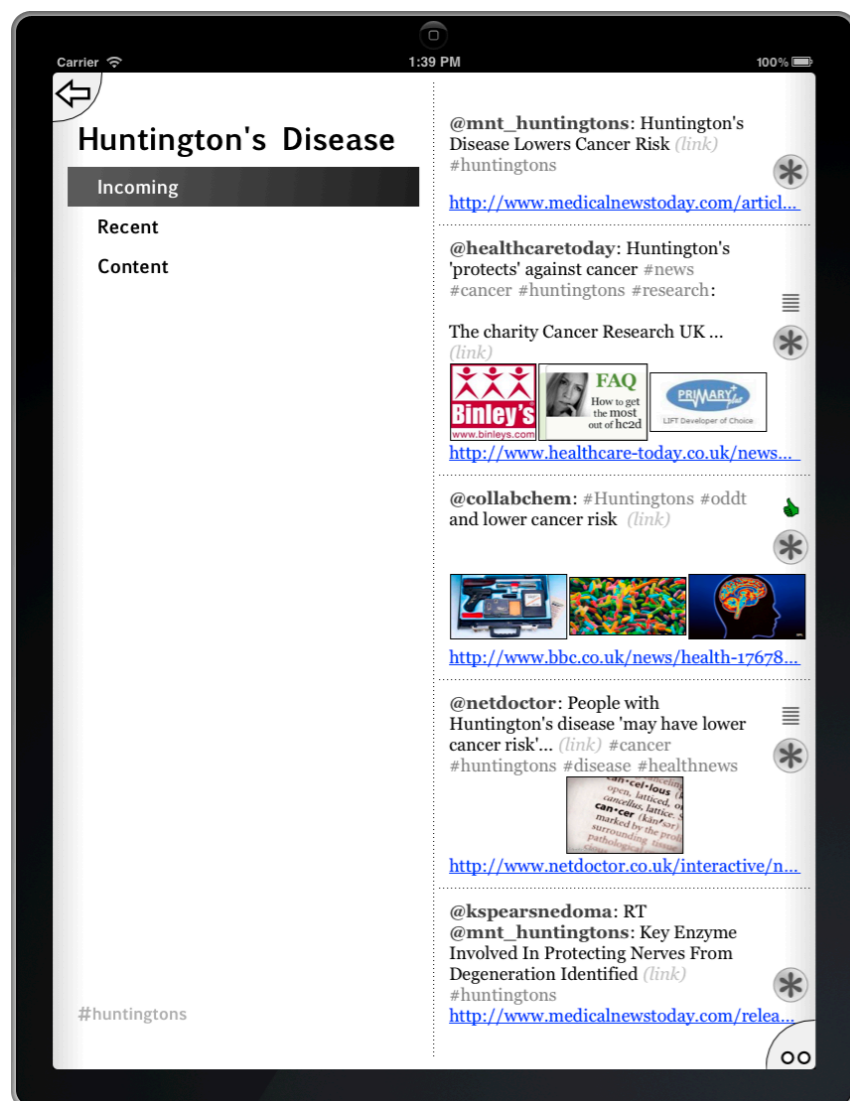
#huntingtons

#malaria

#chagas

#H5N1

Topic Browsing

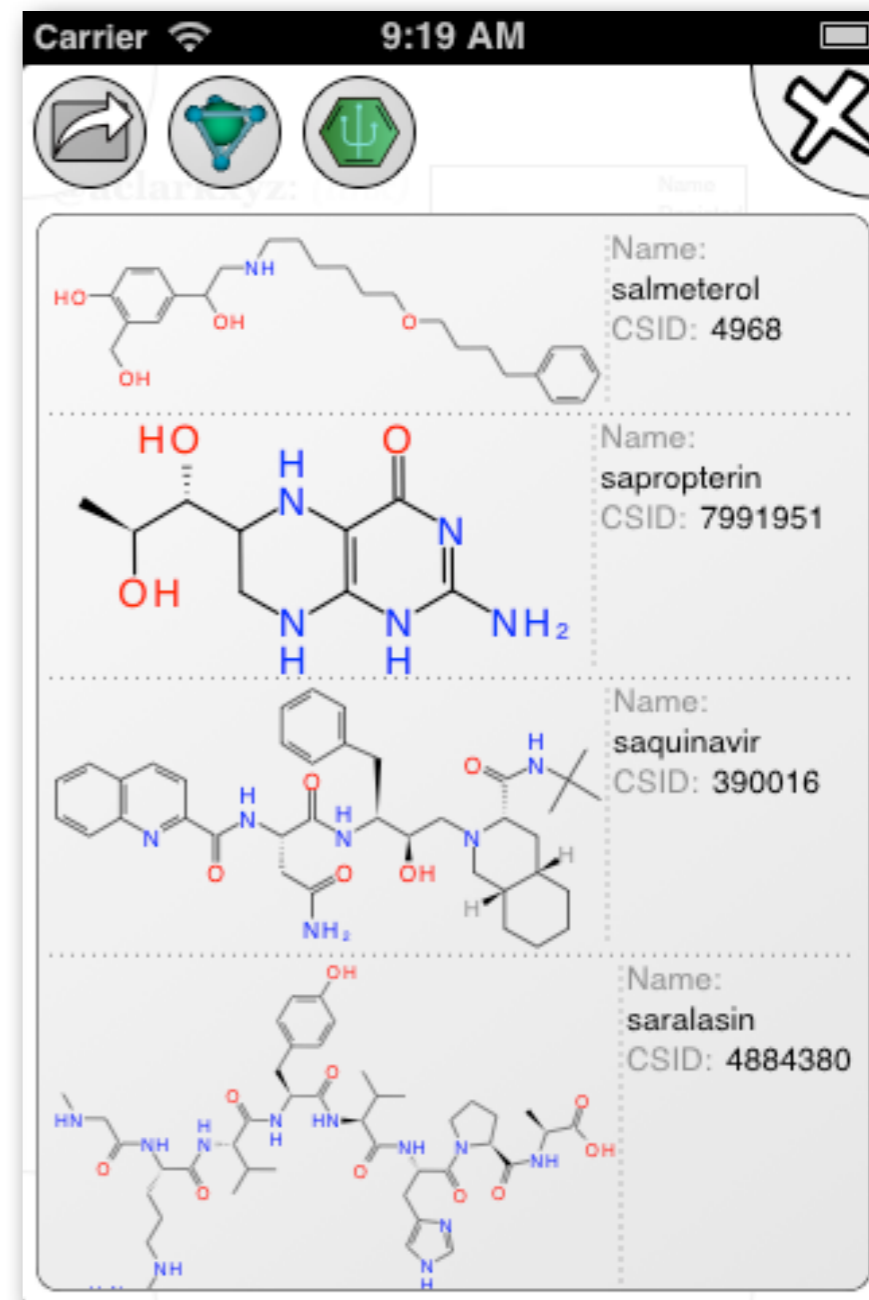
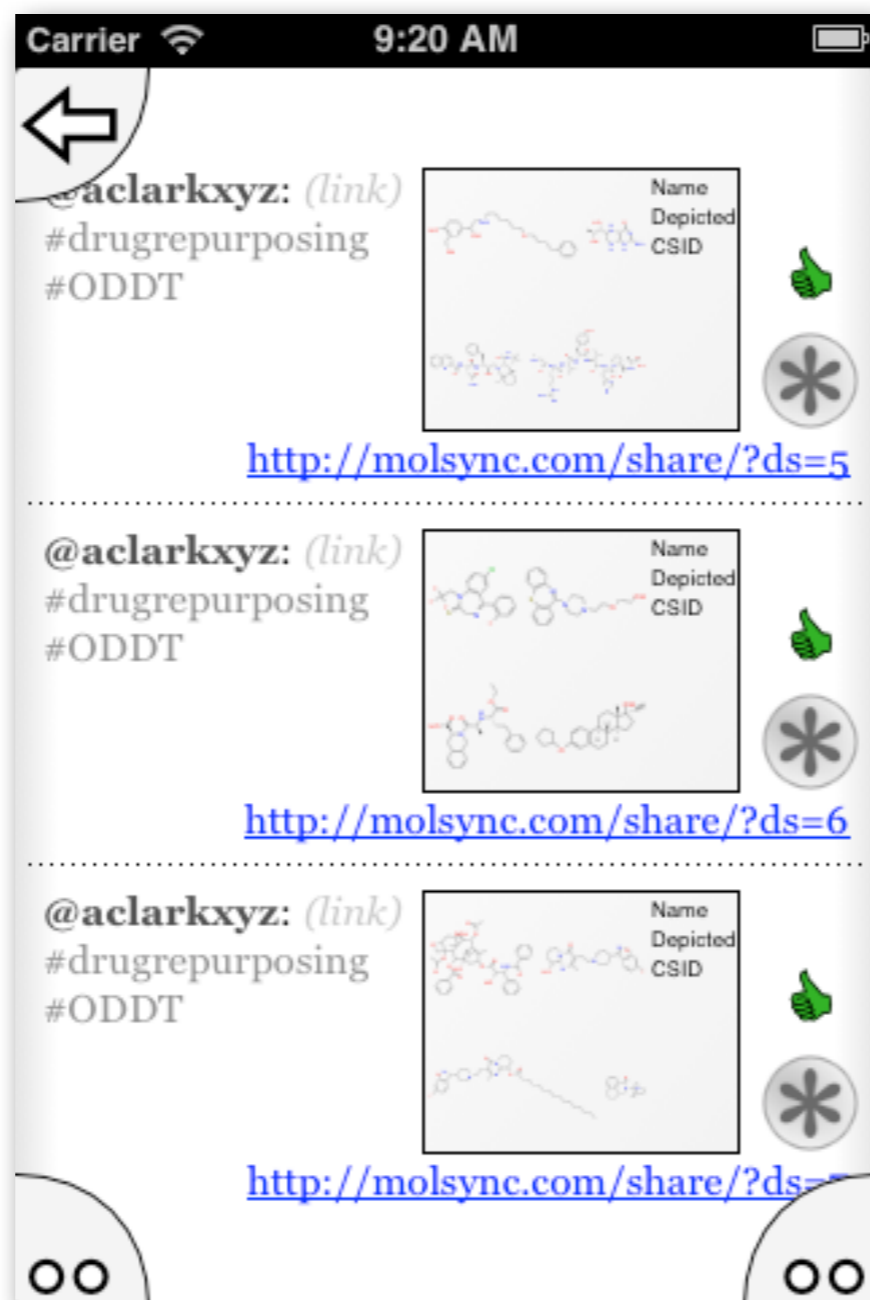
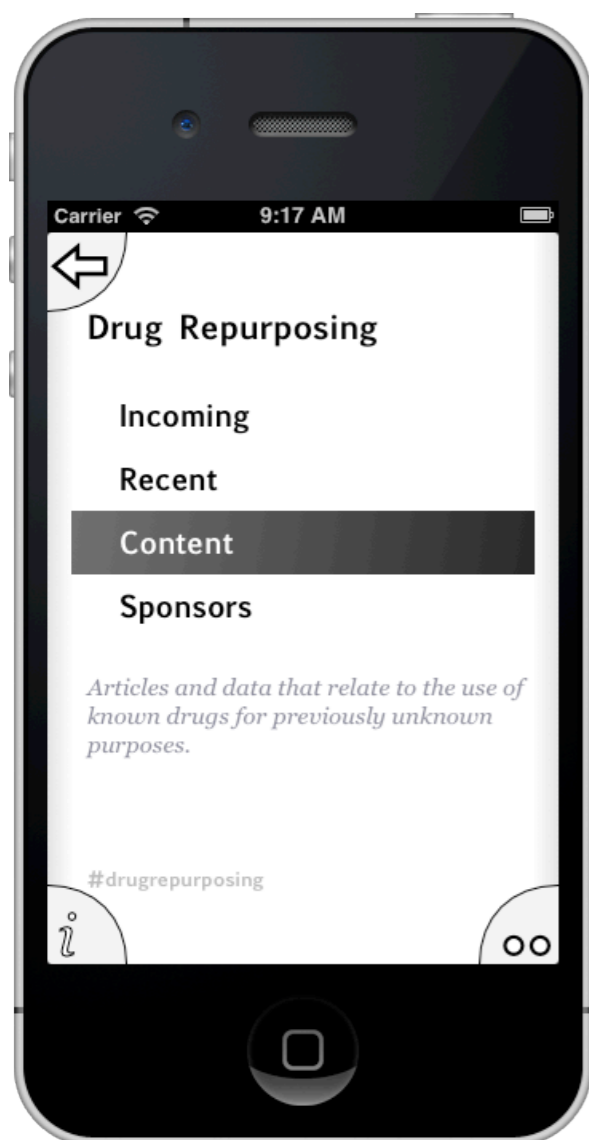


- Magazine-like
- Thumbnails
- Links
- Molecules
- Voting

- Users curate the relevant content by endorsing
- Interaction is done by tweeting from the app
- The result is a crowd-curated knowledge resource


Molecules

- ODDT is chemistry aware...



- ... harvesting chemical data allows many possibilities

Where to next

- ODDT is an experimental project
- Sponsorship: 
- App is free, data is totally open
- Potentially valuable intellectual property
- Know of a rare or neglected disease with an online community?
 - ➔ We can add a new topic
- Know anyone who is interested in sponsoring projects to increase awareness of rare or neglected diseases?
 - ➔ Contact us!

More Information

<http://oddt.net>

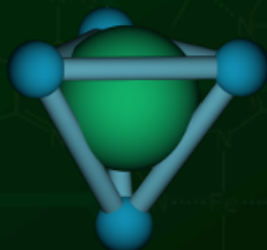
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<http://cheminf20.org>

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