Addgene

A unique non-profit biotech

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Executive Director

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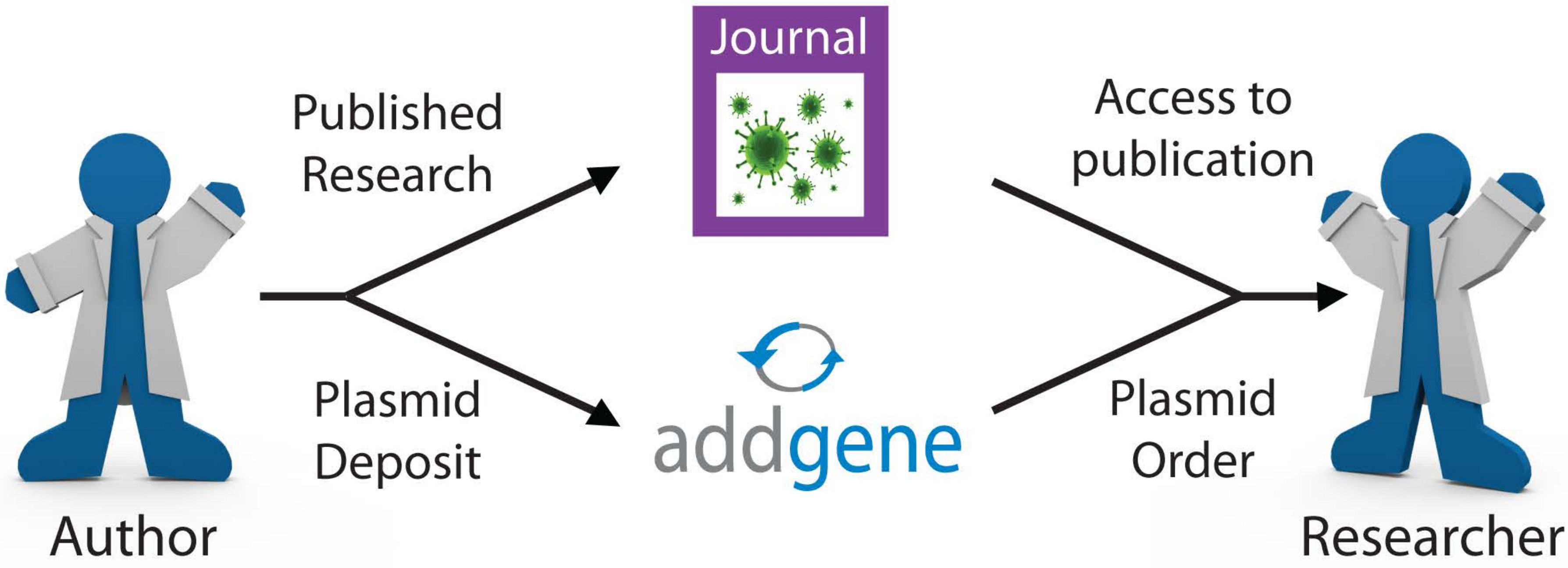
A better way to share plasmids

Addgene's Mission

Accelerate research and discovery by increasing collaboration and improving access to useful research materials and information

Addgene Helps Scientists Share Plasmids

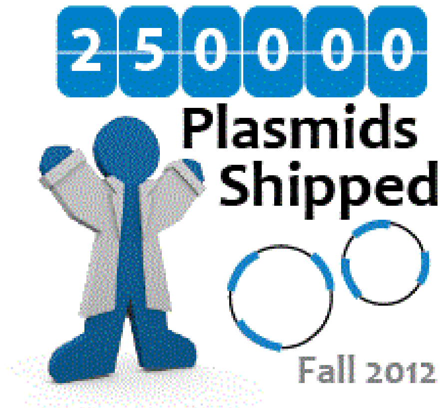


Depositing is free, small shipping/handling fees collected for requests

Since the quality of the library drives requests, Addgene needs to "sell" something "free" to drive company success! Pretty clever?!

Addgene Statistics

- >25,000 plasmids stored
- From >1,500 contributing labs, >400 institutions worldwide
- >300,000 plasmids shipped (not including kits), >1,800/week
- 47% shipped to scientists outside the United States, >3,200 institutions
- MTA approval usually in <3 days (often as fast as a few minutes)
- Samples shipped within 2 business days of MTA approval



¼ Million Milestone

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Why is this Working?

- Tenacious and talented founders
- First adopters were respected scientists, prestigious institutions, leading TTOs
- Plasmids were getting less "valuable" in potential licensing terms
- Everybody was getting fed up with how long it takes to get an MTA in place
- Addgene created a "Win-Win-Win" service

Creating a Win-Win-Win

Depositor Wins

- Save time by not having to answer requests for published reagents
- Gain exposure with searchable database
- Clarity on where there reagents have gone
- Increase citations of depositor publications
- Protection against usual lab turnover, archiving of key reagents
- Never have to figure out how to ship to Qatar

Requestor Wins

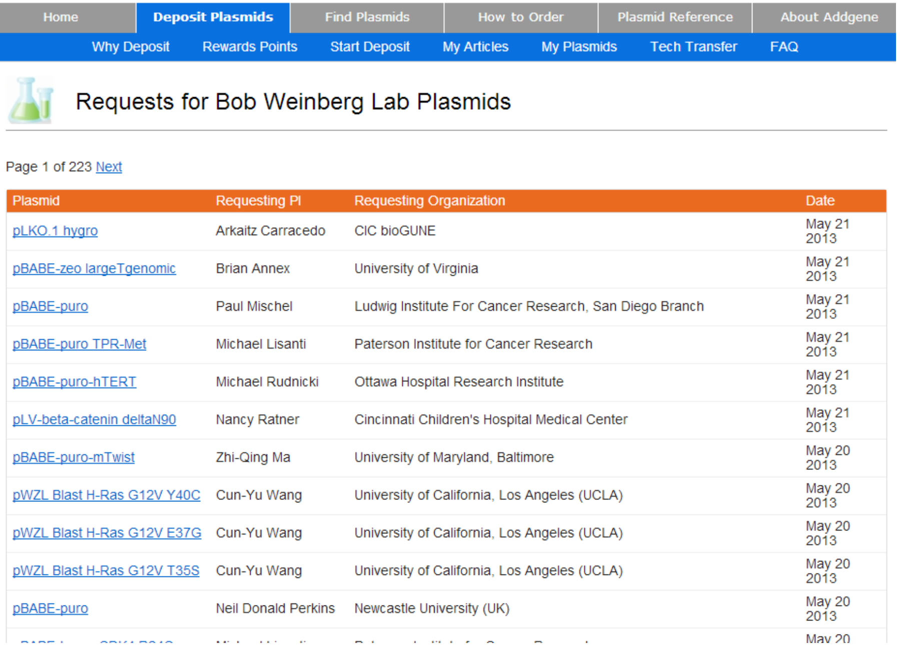
- Access to many laboratories' plasmids through one order
- Find things you didn't know you needed in the database
- Actually receive the plasmids requested, usually within days, and no reminder emails need to be sent to a busy lab tech
- International access
- Rigorous QC and curation
- Some to call for problems (in addition to the depositor)

Technology Transfer Office Wins

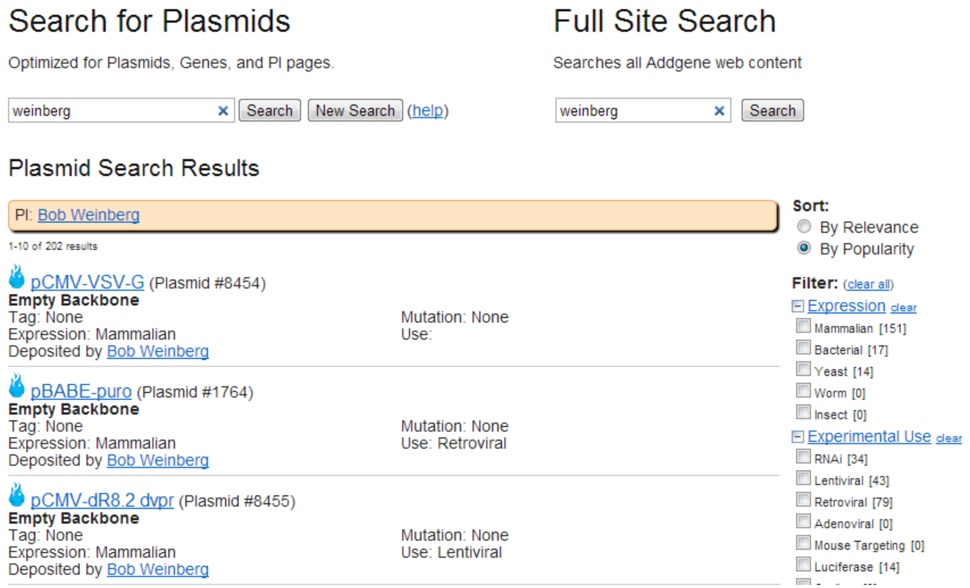
- Scientists actually use MTAs to exchange plasmids
- "Credit" for clearing MTAs rapidly
- Get a list of who has plasmids any time (for grants or legal record keeping)

Acknowledging our Depositors

- Addgene is a broker—all of our materials are completely owned by the depositor
- PIs get regular, automated email updates with information on who has requested their plasmids
- Or they can access this information via their account page
- TTOs can see distribution of all plasmids at their institution



Plasmid	Requesting PI	Requesting Organization	Date
pLKO.1 hygro	Arkaitz Carracedo	CIC bioGUNE	May 21 2013
pBABE-zeo largeTgenomic	Brian Annex	University of Virginia	May 21 2013
pBABE-puro	Paul Mischel	Ludwig Institute For Cancer Research, San Diego Branch	May 21 2013
pBABE-puro TPR-Met	Michael Lisanti	Paterson Institute for Cancer Research	May 21 2013
pBABE-puro-hTERT	Michael Rudnicki	Ottawa Hospital Research Institute	May 21 2013
pLV-beta-catenin deltaN90	Nancy Ratner	Cincinnati Children's Hospital Medical Center	May 21 2013
pBABE-puro-mTwist	Zhi-Qing Ma	University of Maryland, Baltimore	May 20 2013
pWZL Blast H-Ras G12V Y40C	Cun-Yu Wang	University of California, Los Angeles (UCLA)	May 20 2013
pWZL Blast H-Ras G12V E37G	Cun-Yu Wang	University of California, Los Angeles (UCLA)	May 20 2013
pWZL Blast H-Ras G12V T35S	Cun-Yu Wang	University of California, Los Angeles (UCLA)	May 20 2013
pBABE-puro	Neil Donald Perkins	Newcastle University (UK)	May 20 2013



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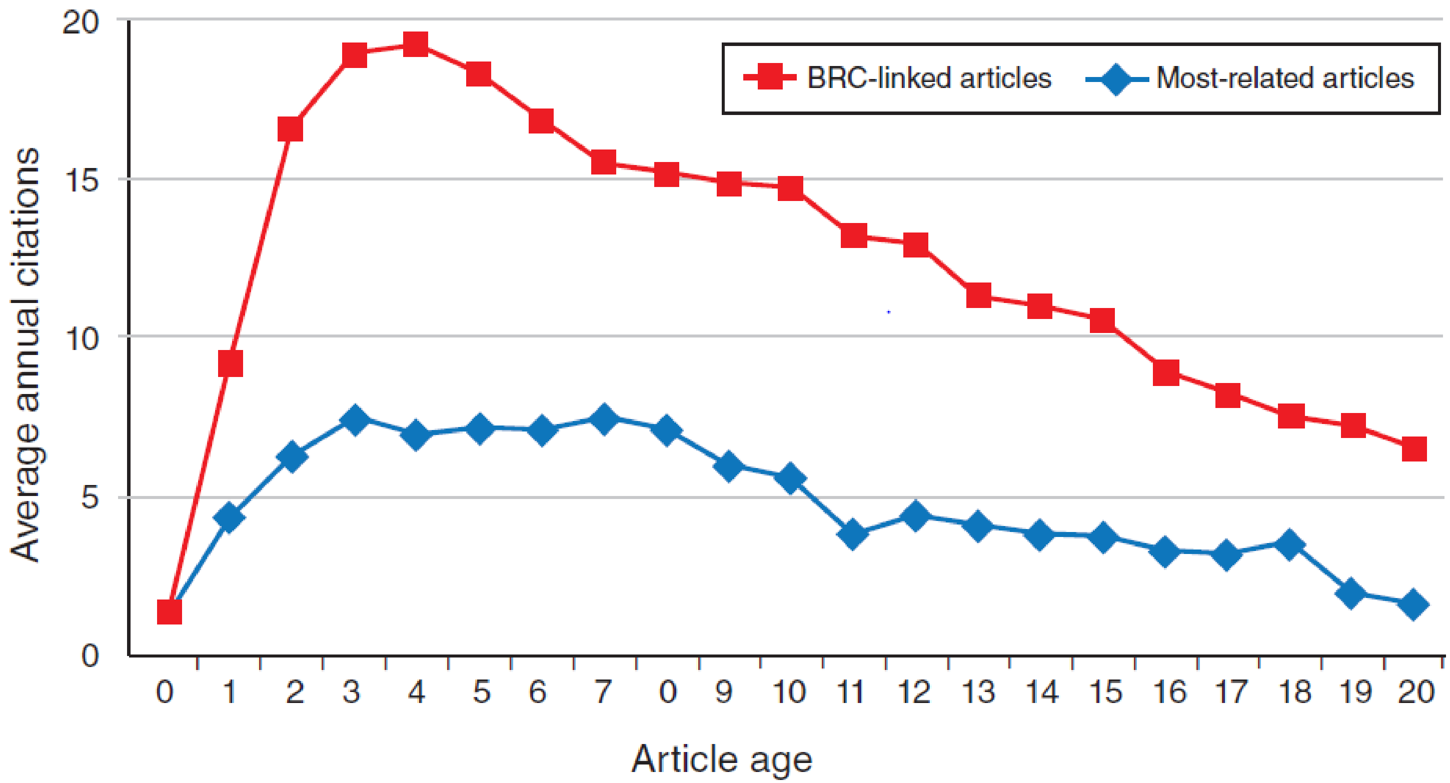
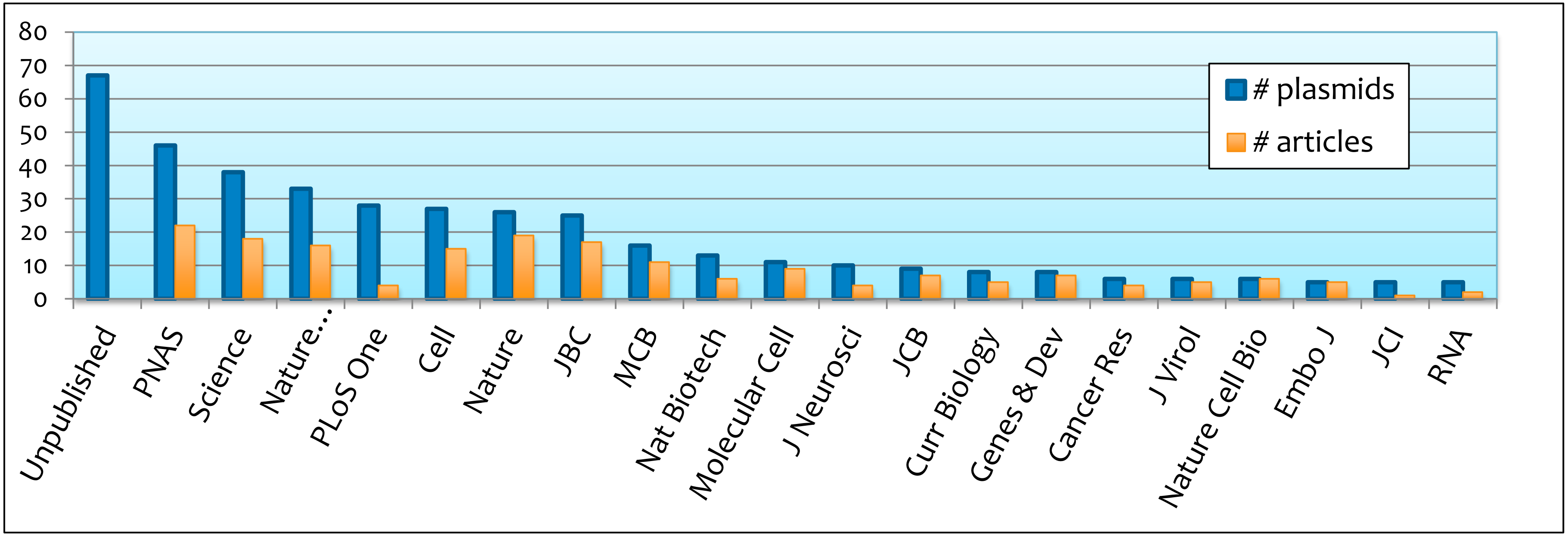
Depositing in a Biological Resource Center Increases Citation Rates



"Climbing Atop the Shoulders of Giants: The Impact of Institutions on Cumulative Research."
Jeffrey Furman and Scott Stern. American Economic Review 101.5 (2011): 1933–1963.

Where Were Addgene Plasmids Published?

- Top 500 distributed plasmids in 2012 were analyzed for the journal in which they were published
- Journals with more than 5 citations in this group were graphed here
- Number of plasmids (in the top 500) and number of articles represented are graphed below



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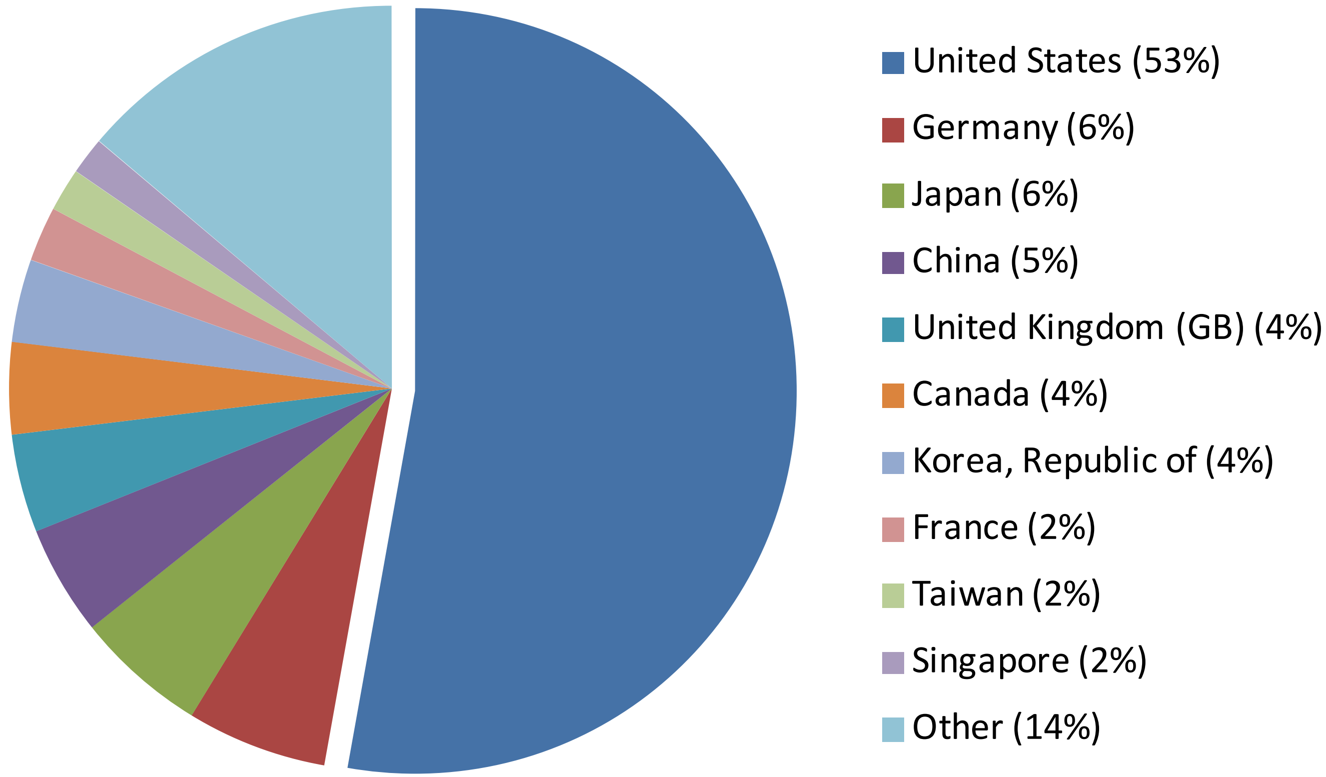
Global Impact from Cambridge, MA

- In 2012, Addgene distributed 32,000+ samples (~47%) to research scientists in 66 countries outside the US

2012 % Requests by Country



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Addgene's Electronic MTA System

- Addgene pioneered a novel, electronic MTA system to enable the easy transfer of biomaterials between research institutions
  - The eMTA system allows recipient organizations to complete MTAs electronically or to submit paper signatures
- Each plasmid exchanged has a signed MTA
  - Addgene has facilitated >160,000 MTAs since 2004
- UBMTA with a modified implementing letter used as base for all transfers
  - Ancillary Agreements used for special cases
  - No red lining, Addgene MTA used as is
- eMTA: 2012 finalist for the MassTLC Leadership Awards in the Best Use of Technology category

Technology Transfer Approach

Deposit Process

Depositor completes deposit form → MTA emailed → Tech Transfer Office or Depositing PI → Authorized signature → MTA is approved → Stored materials are available to the scientific community

Request Process

Scientist places order online → Addgene emails MTA to TTO or PI → MTA is approved → Addgene ships material to scientist

http://www.addgene.org/technologytransfer/ttopage/

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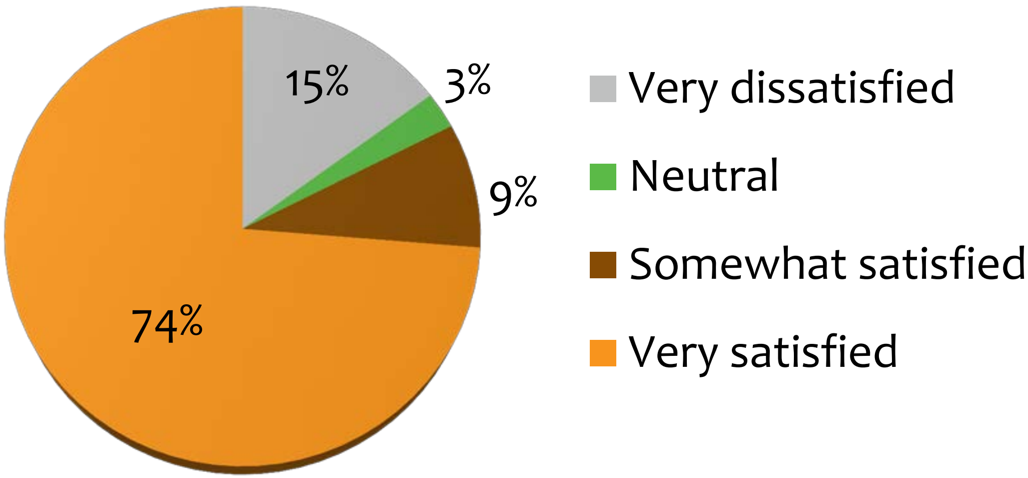
Breaking Down Barriers to Sharing

- Addgene maintains close relationships with the Tech Transfer Offices to make this as easy as possible
- US MTA Approval Statistics
  - 80% electronic vs. 20% paper
  - Average Approval 3 days
  - Median Approval 1 day

Tech Transfer Office Survey:

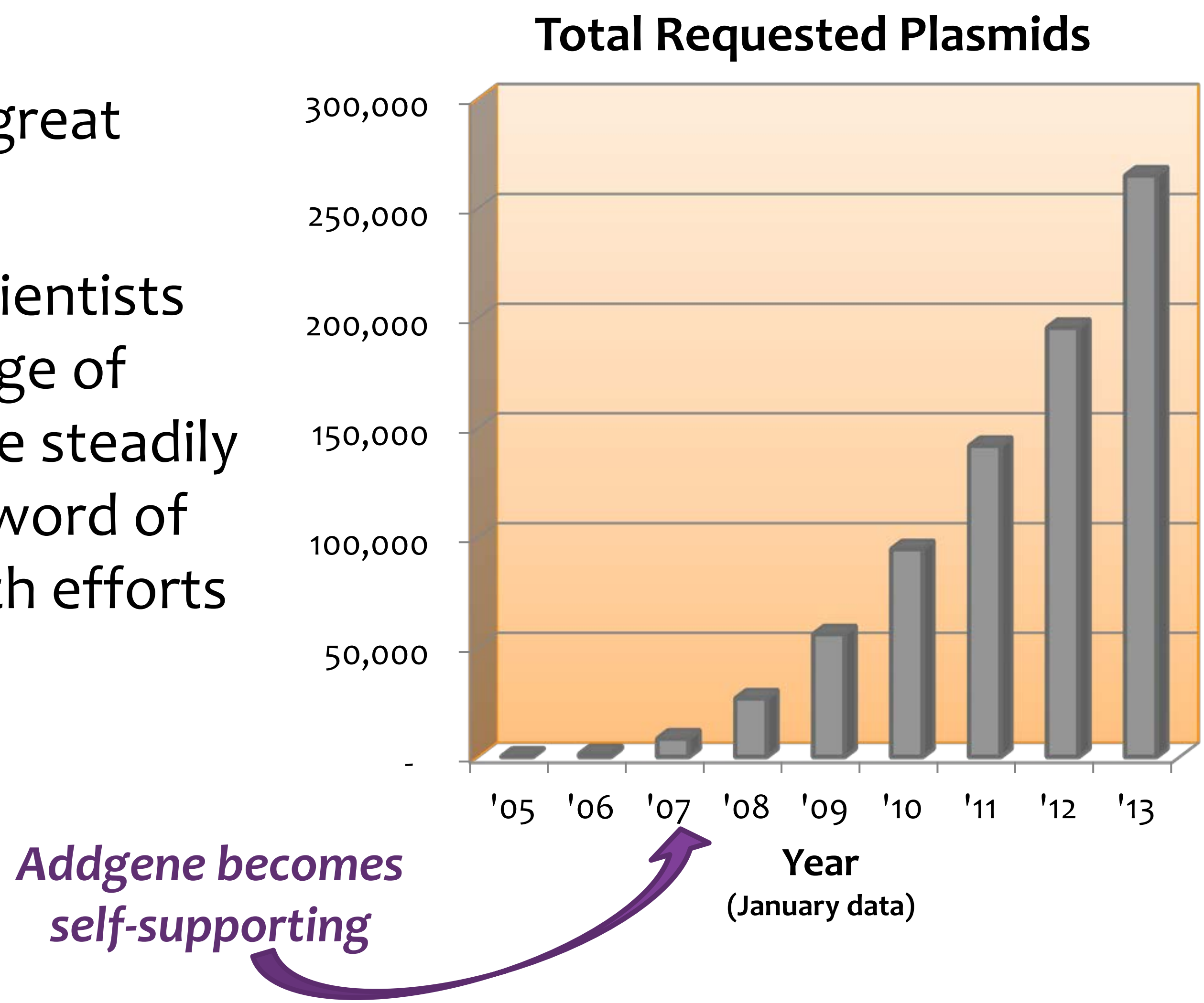
How would you rate your level of satisfaction with Addgene's MTA services?



Filling the Need Supports the Mission

The need was great

The number of scientists taking advantage of Addgene's resource steadily increases due to word of mouth and outreach efforts



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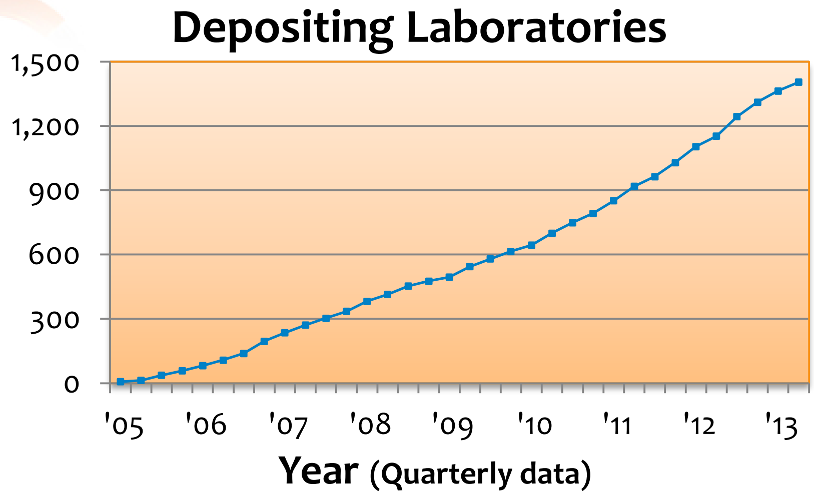
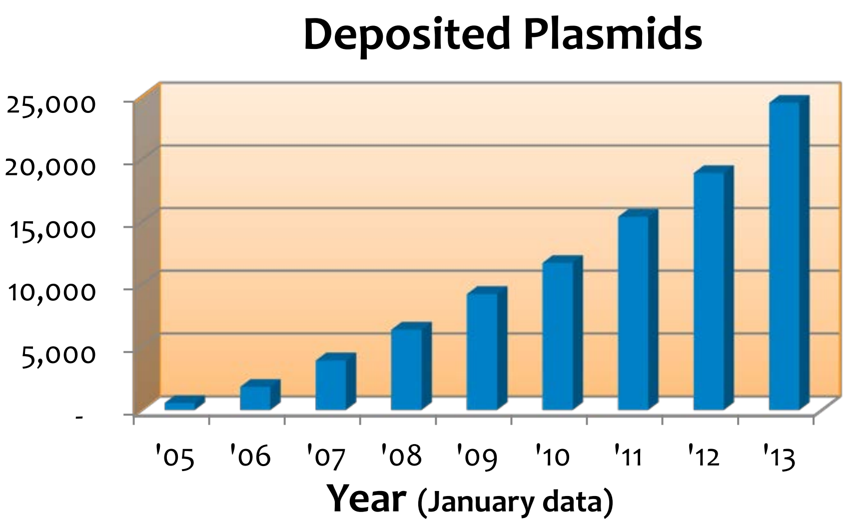
Growth of the Sharing Community





Scientists support the model (some enthusiastically)

Number of participating scientists increasing—many want to participate in the Addgene community and support the mission

The Addgene Team