



**Treatment Action Group**



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TUBERCULOSIS RESEARCH  
AND DEVELOPMENT:

# 2012 Report on Tuberculosis Research Funding Trends, 2005-2011

COMPANION GRAPHS

**TAG**

Treatment Action Group

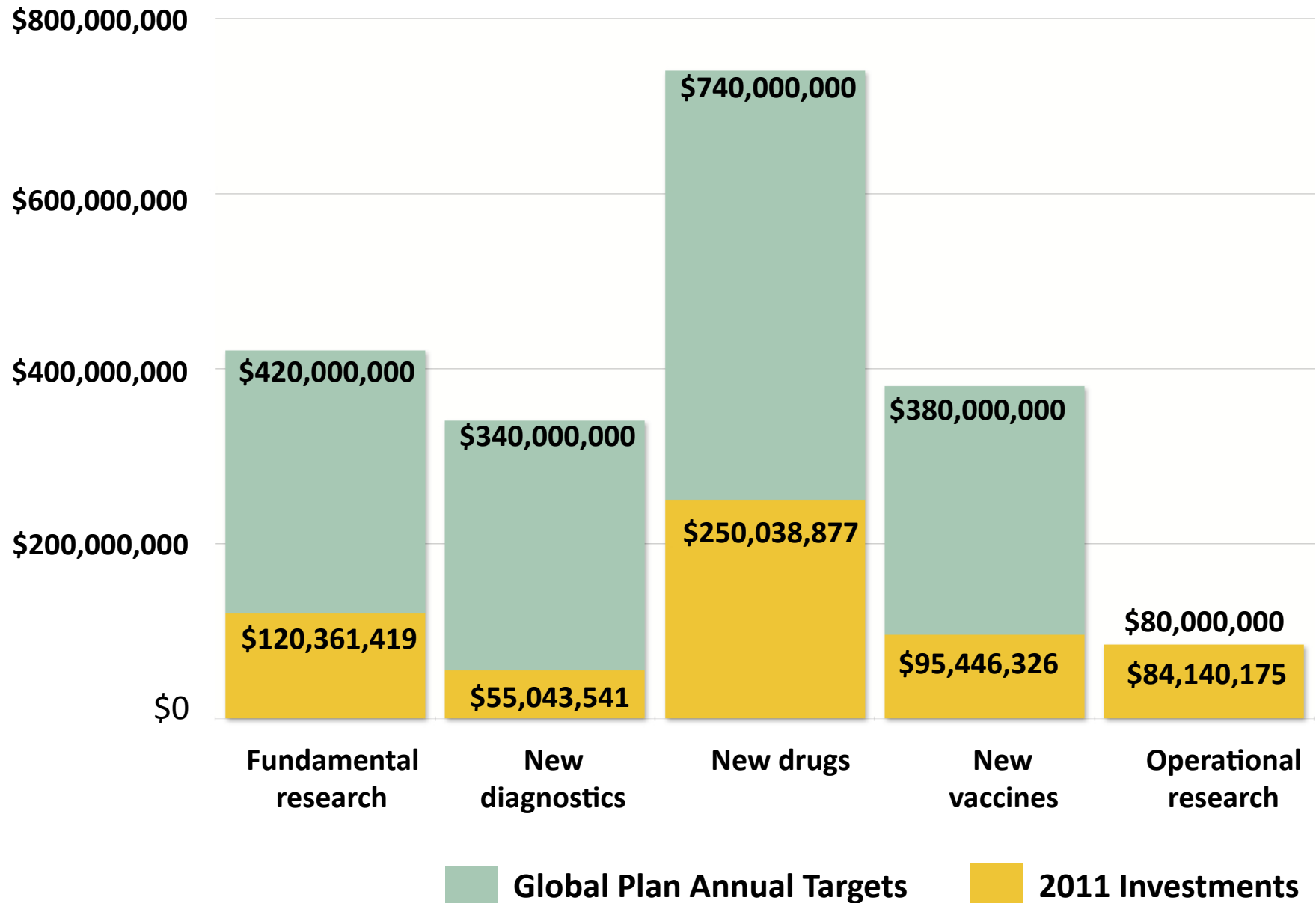
Stop TB Partnership

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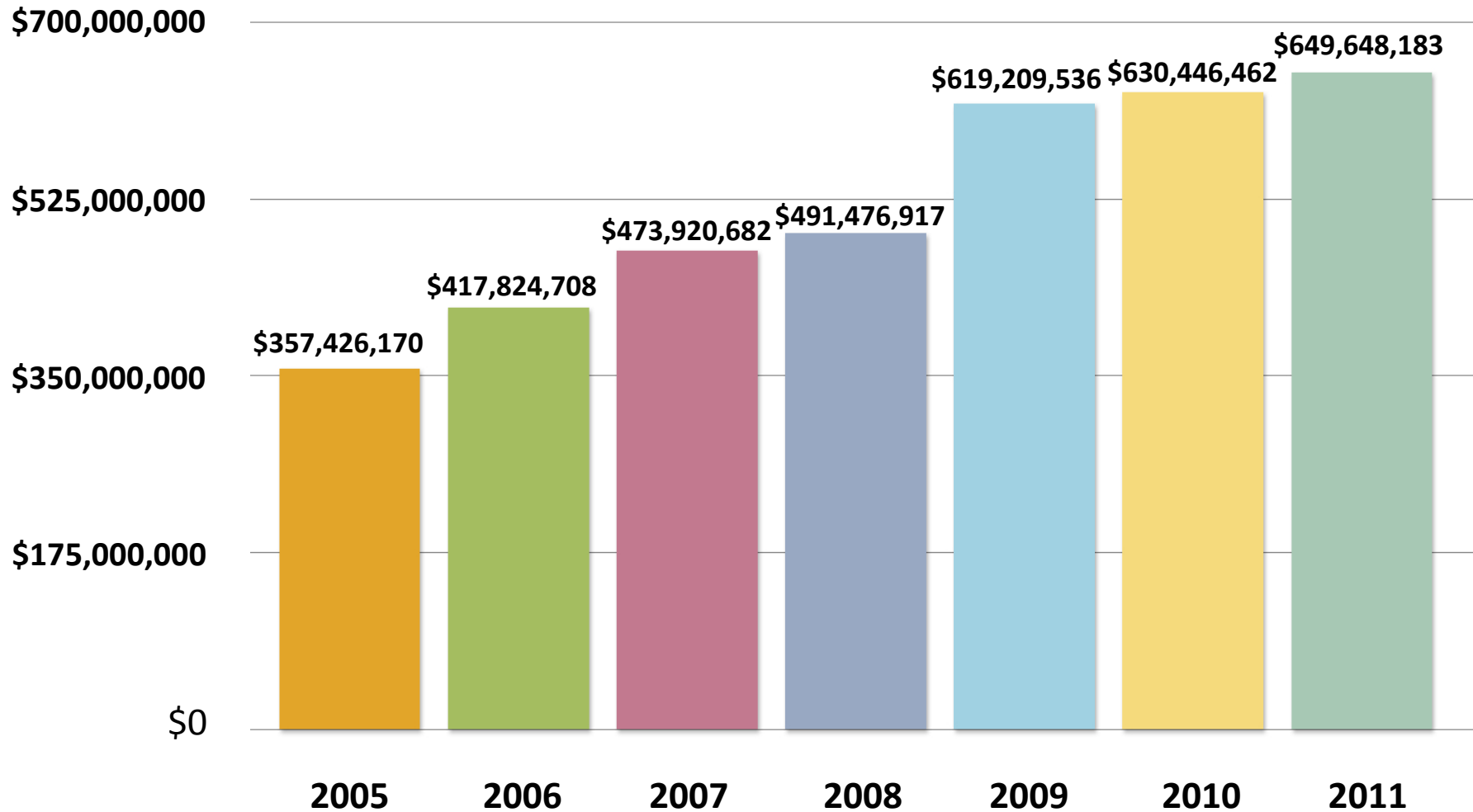
# 2012 Report on Tuberculosis Research Funding Trends, 2005–2011



# Annual Global Plan Research Funding Targets vs. 2011 Investments



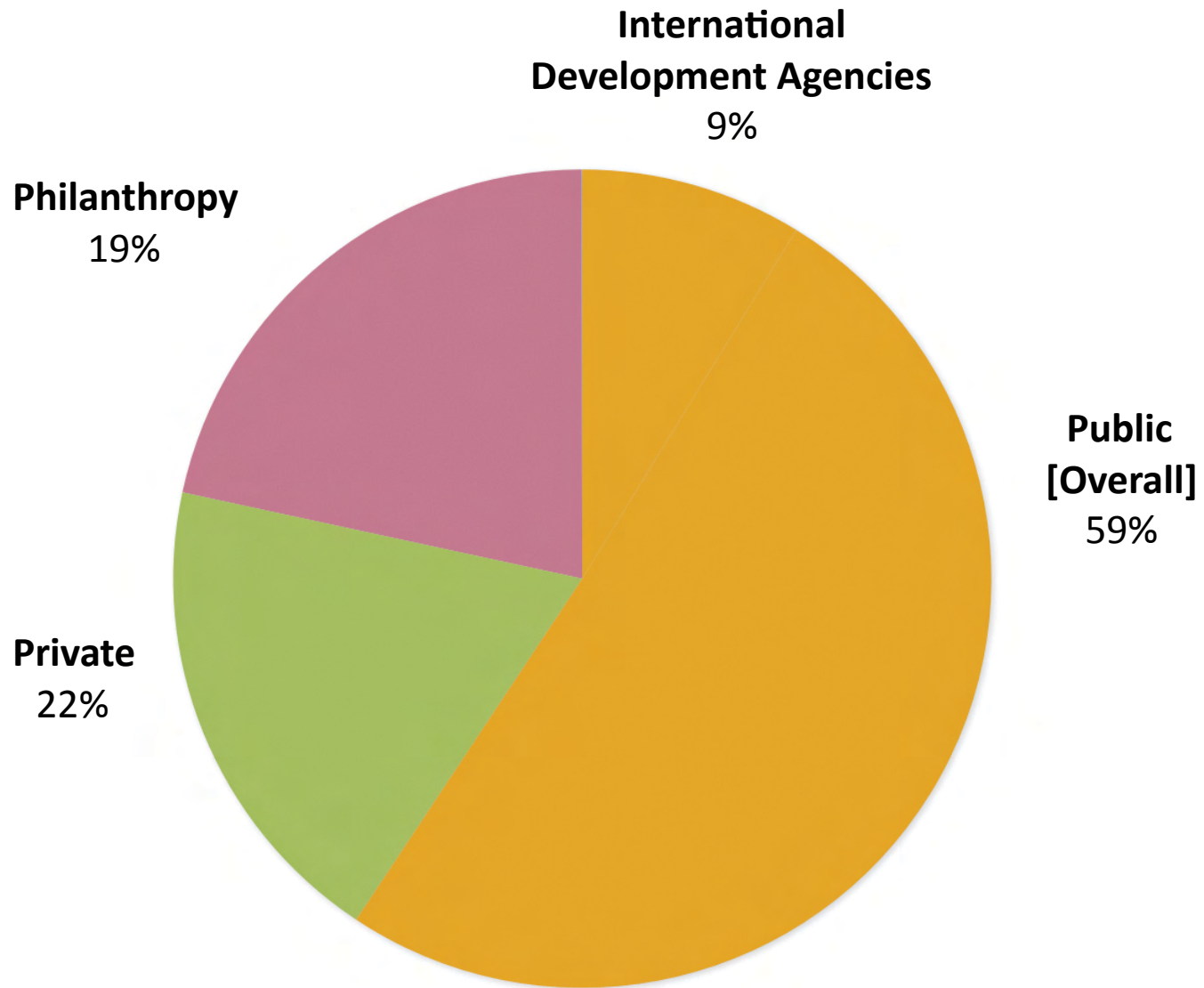
# Total TB R&D Funding: 2005-2011



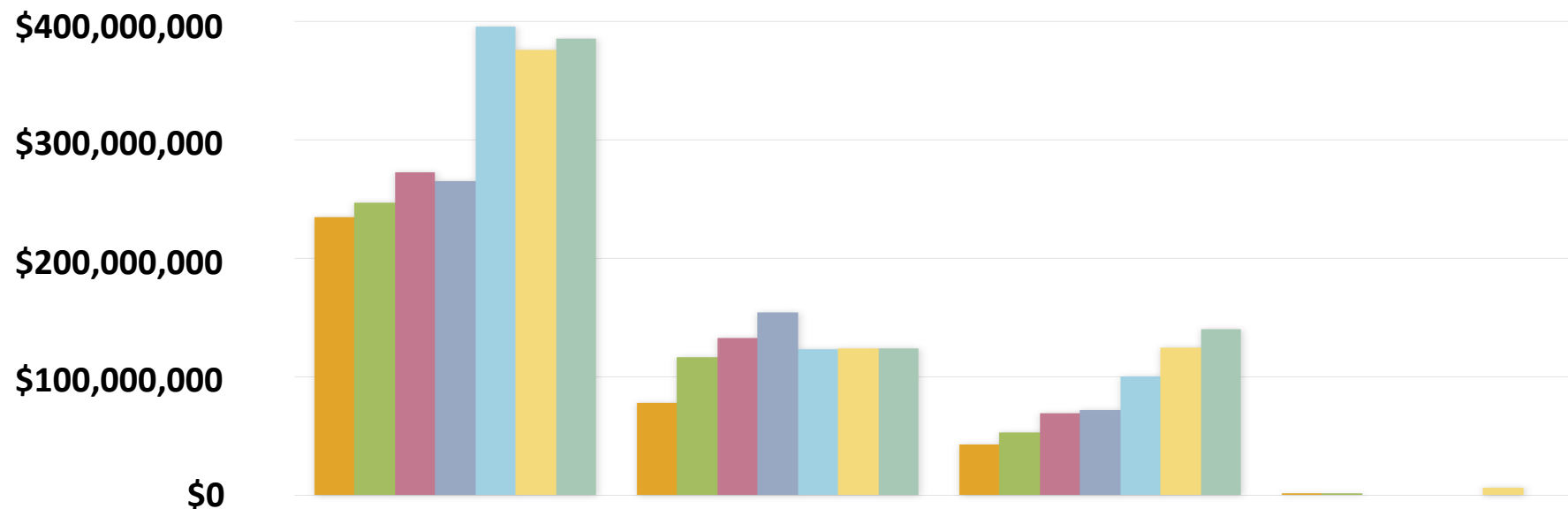
**2011 TB R&D investments witnessed an 82% increase over 2005 levels, but only 3% growth since 2010.**

# Total TB R&D Funding: by Donor Sector: 2011

Total: \$649,648,183



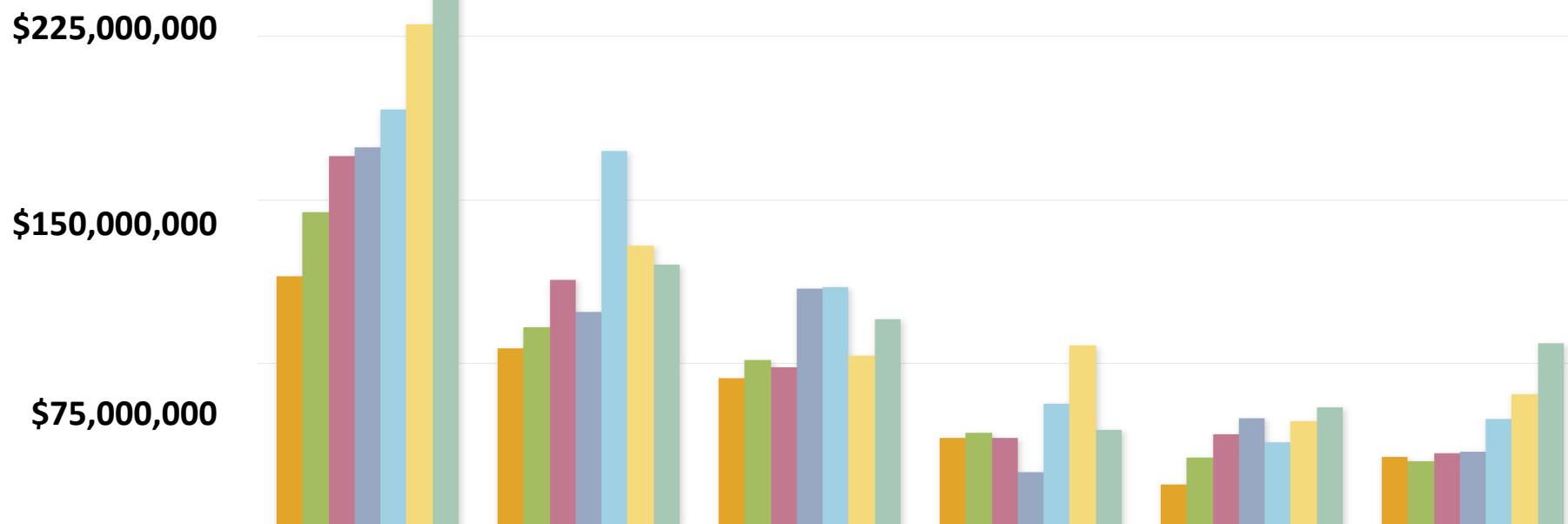
# Total TB R&D Funding by Donor Sector: 2005-2011



	<b>Public*</b>	<b>Philanthropy</b>	<b>Private</b>	<b>Multilateral</b>
<b>2005</b>	\$234,503,645	\$78,178,708	\$43,095,353	\$1,648,083
<b>2006</b>	\$246,862,858	\$116,289,274	\$53,138,347	\$1,534,259
<b>2007</b>	\$272,404,317	\$132,326,981	\$69,387,383	N/A
<b>2008</b>	\$264,944,215	\$154,513,987	\$72,018,715	N/A
<b>2009</b>	\$395,326,911	\$123,383,703	\$99,973,537	\$525,385
<b>2010</b>	\$376,189,816	\$123,974,117	\$124,249,938	\$6,022,590
<b>2011</b>	\$385,343,785	\$123,889,768	\$140,168,565	\$246,064

\* Includes funding from International Development Agencies

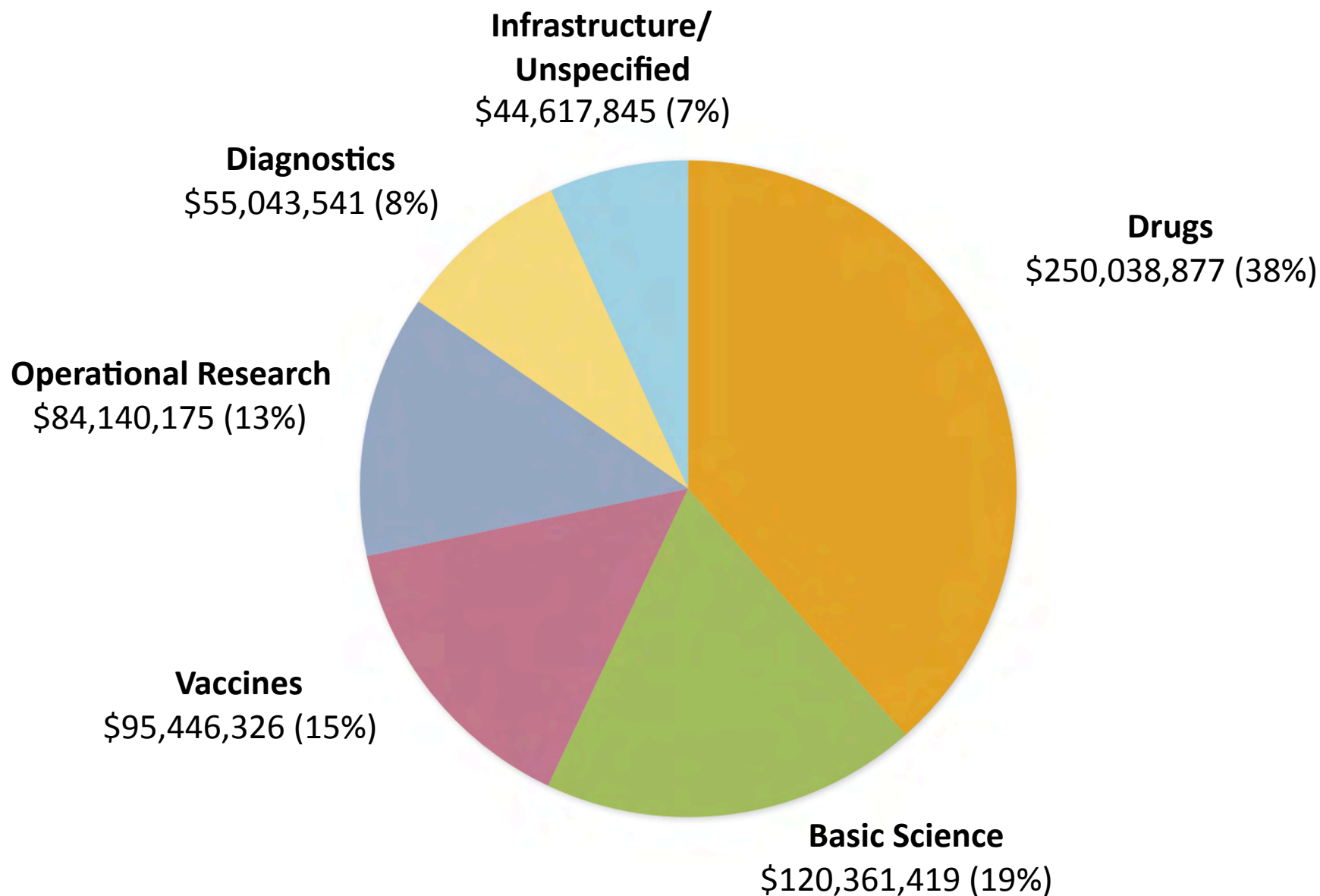
# Investments in TB R&D by Research Category: 2005-2011



\$0	Drugs	Basic Science	Vaccines	Infrastructure/ Unspecified	Diagnostics	Operational Research
2005	\$114,862,738	\$81,892,167	\$68,351,530	\$40,741,527	\$19,408,124	\$32,170,084
2006	\$144,336,532	\$91,643,009	\$76,555,111	\$43,205,600	\$31,890,329	\$30,194,127
2007	\$170,233,497	\$113,325,202	\$73,225,383	\$40,734,199	\$42,435,113	\$33,967,288
2008	\$174,178,052	\$98,728,019	\$109,337,224	\$25,032,930	\$49,788,950	\$34,411,742
2009	\$191,483,304	\$172,447,841	\$110,133,485	\$56,686,918	\$38,921,229	\$49,536,760
2010	\$230,540,443	\$129,008,413	\$78,446,298	\$83,145,063	\$48,410,889	\$60,895,355
2011	\$250,038,877	\$120,361,419	\$95,446,326	\$44,617,845	\$55,043,541	\$84,140,175

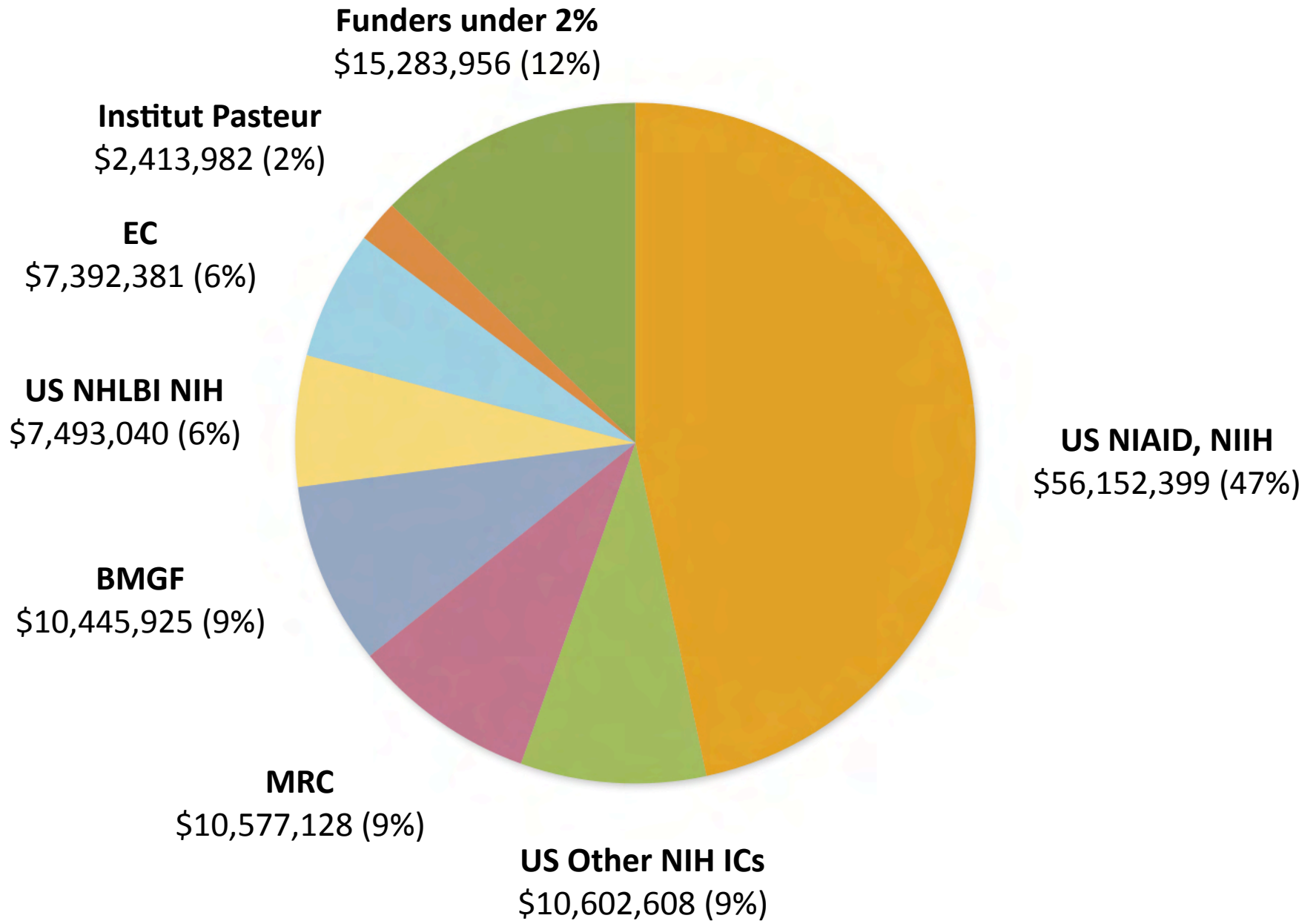
# Total TB Investments by Research Category: 2011

Total: \$649,648,183

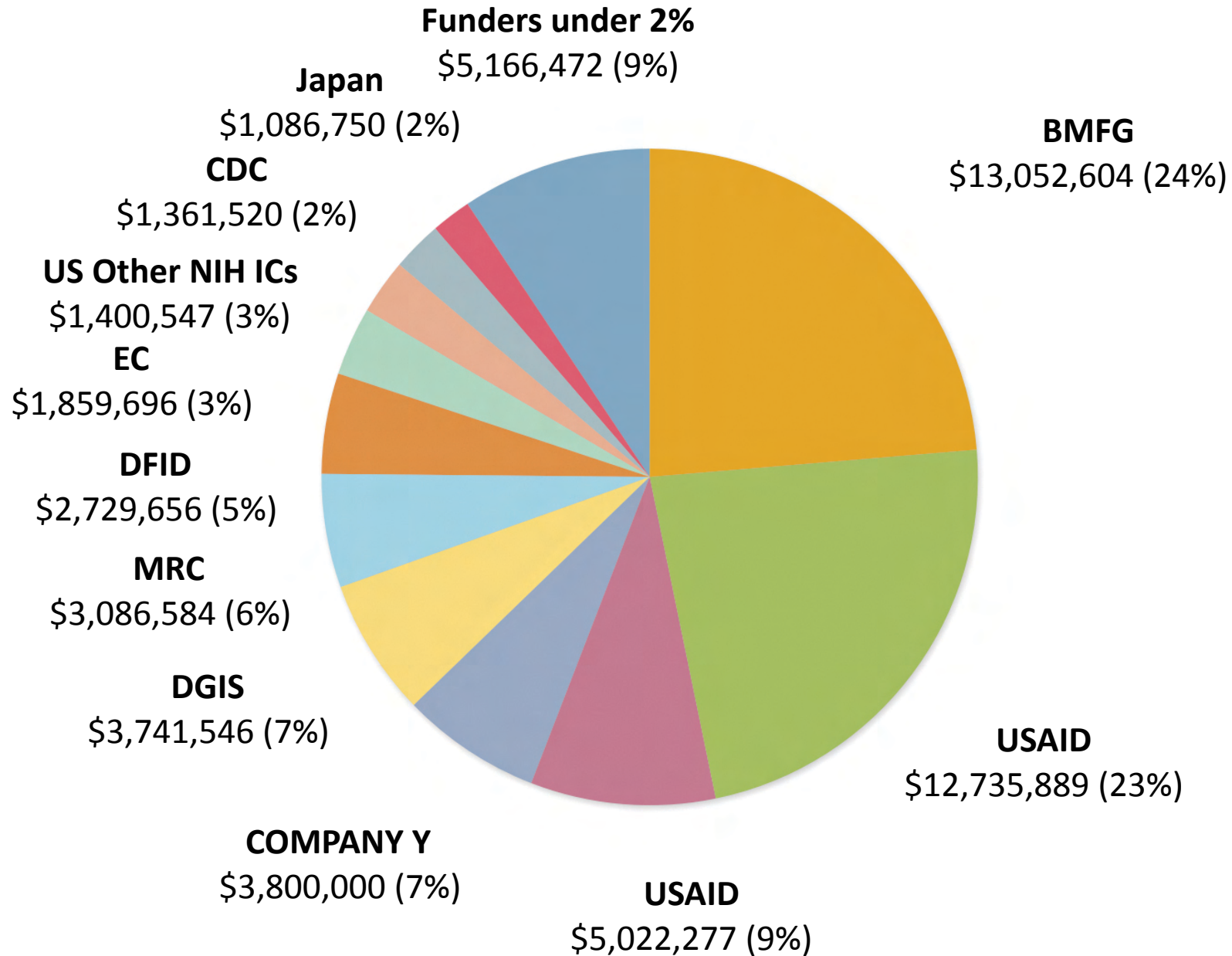




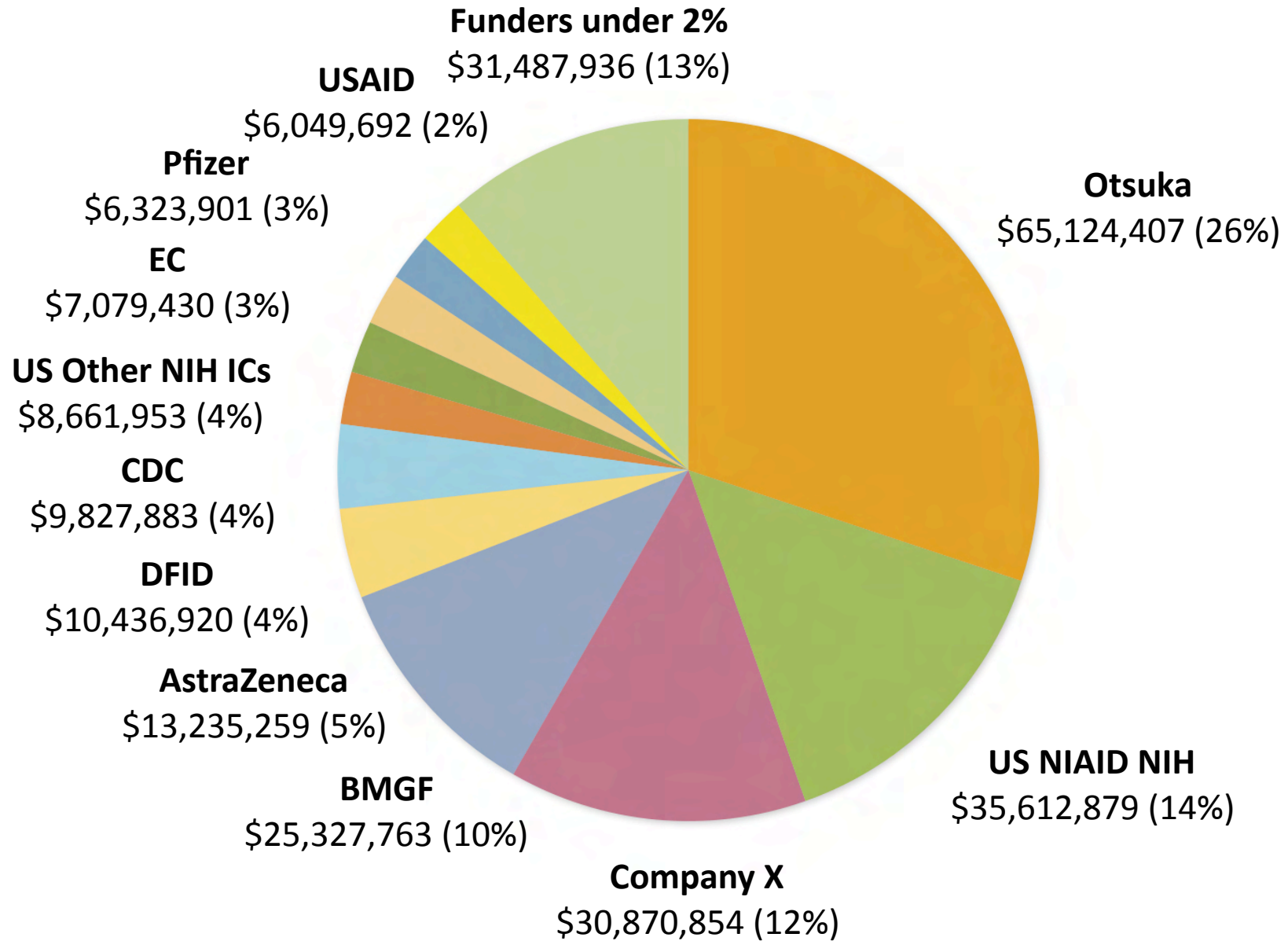
# Basic Science: \$120,361,419



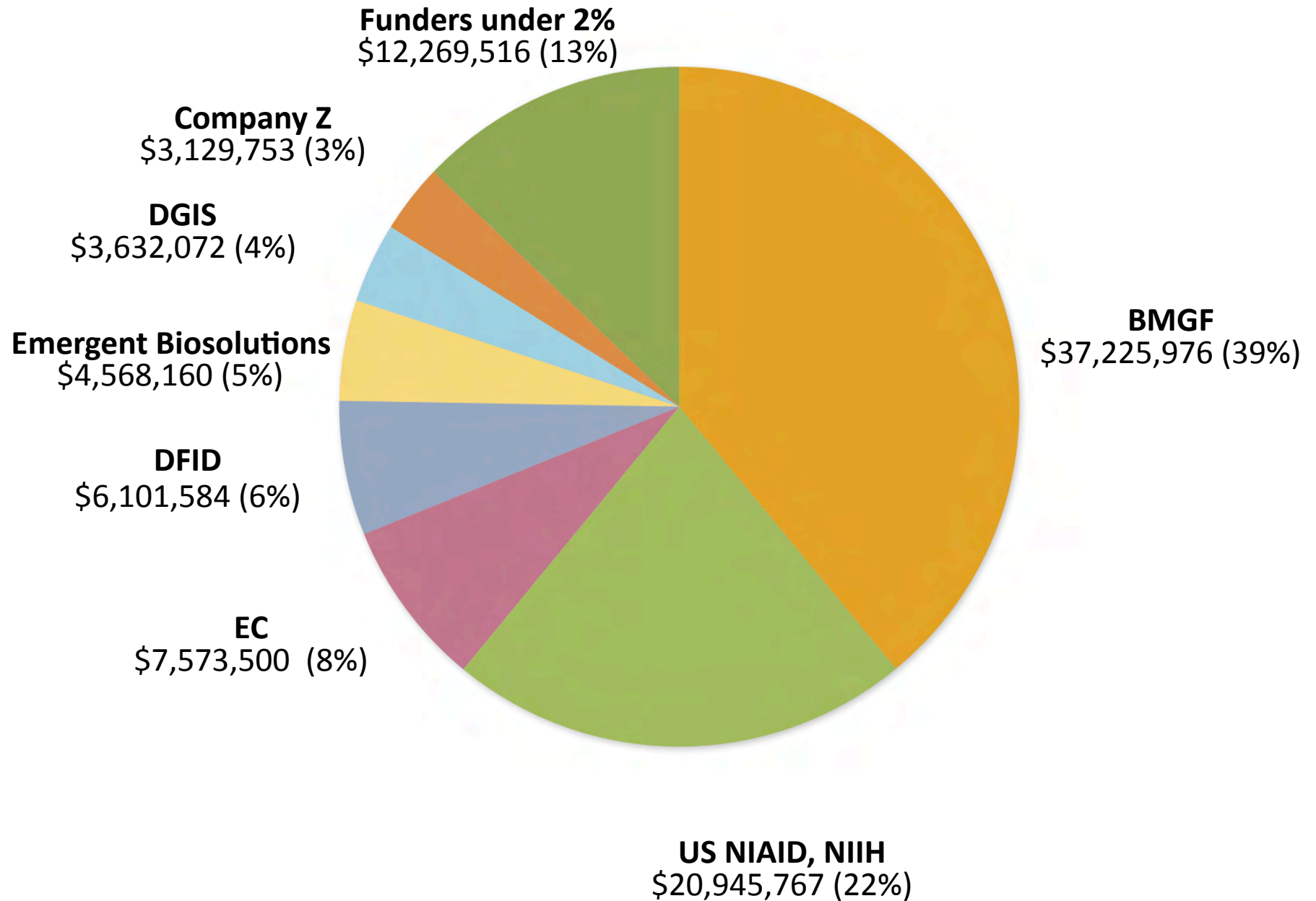
# TB Diagnostics: \$55,043,541



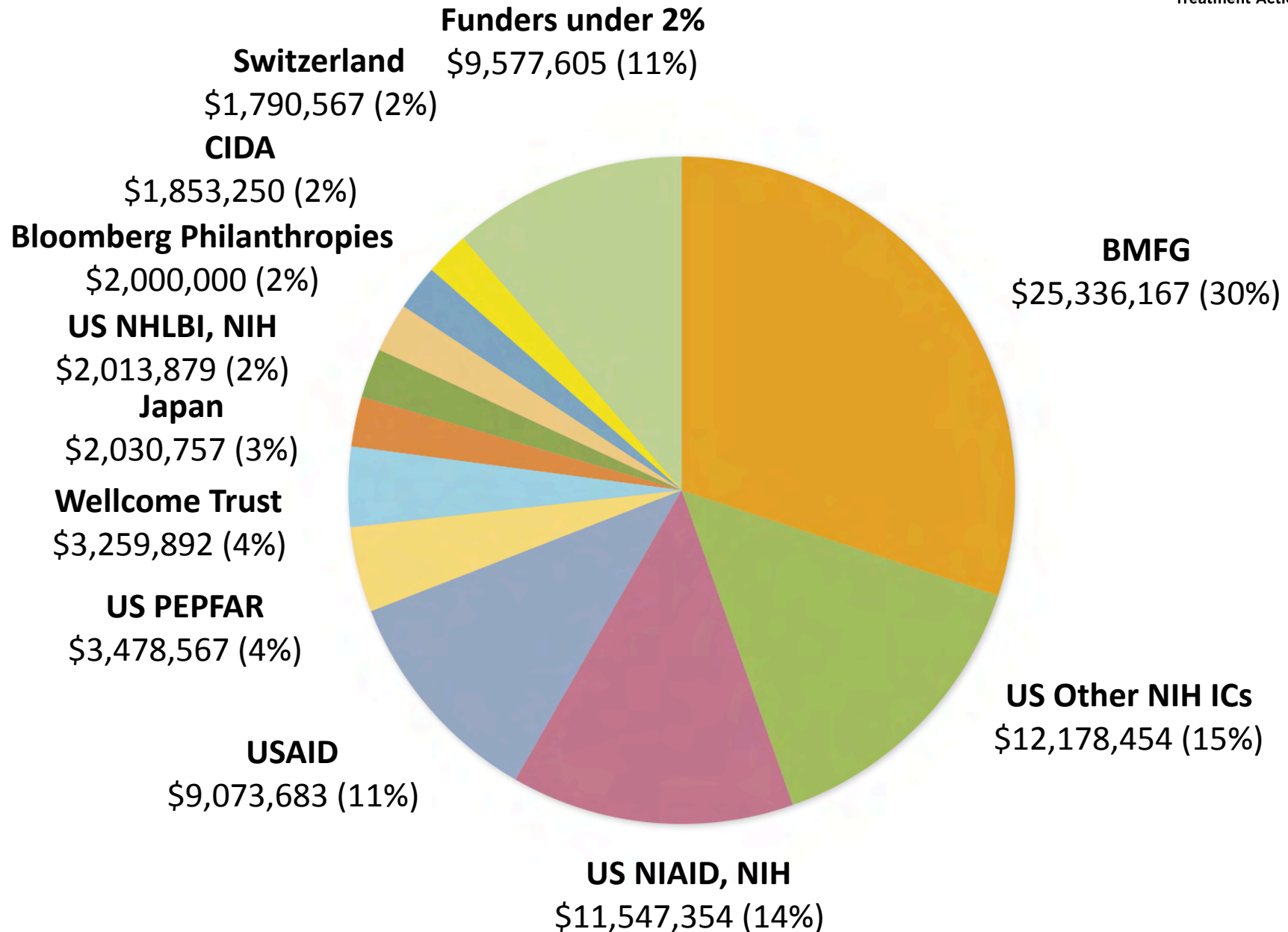
# TB Drugs: \$250,038,877



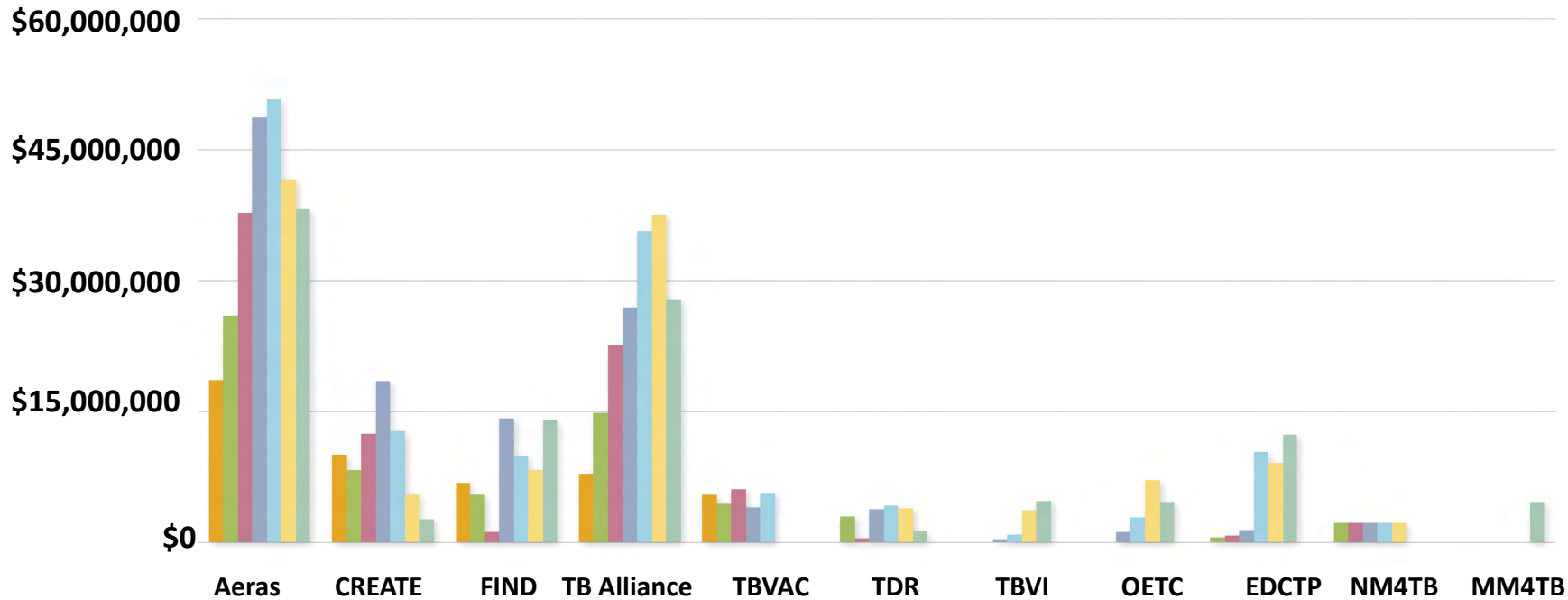
# TB Vaccines: \$95,446,326



# Operational Research: \$84,140,175



# TB R&D PDPs and Research Consortia: 2005-2011



	Aerias	CREATE	FIND	TB Alliance	TBVAC	TDR	TBVI	OETC	EDCTP	NM4TB	MM4TB
<b>2005</b>	\$18,580,139	\$10,000,000	\$6,778,239	\$7,874,983	\$5,445,450	N/A	N/A	N/A	N/A	N/A	N/A
<b>2006</b>	\$25,923,809	\$8,298,826	\$5,492,942	\$14,808,362	\$4,451,895	\$2,995,748	N/A	N/A	\$580,039	\$2,214,000	N/A
<b>2007</b>	\$37,704,051	\$12,375,000	\$1,145,409	\$22,624,182	\$6,091,335	\$453,382	N/A	N/A	\$805,625	\$2,214,000	N/A
<b>2008</b>	\$48,679,266	\$18,493,585	\$14,177,202	\$26,885,734	\$3,944,425	\$3,817,352	\$339,741	\$1,196,000	\$1,416,064	\$2,214,000	N/A
<b>2009</b>	\$50,792,515	\$12,786,985	\$9,975,320	\$35,643,490	\$5,634,040	\$4,243,264	\$841,333	\$2,851,000	\$10,343,479	\$2,214,000	N/A
<b>2010</b>	\$41,572,980	\$5,410,545	\$8,212,896	\$37,538,794	Concluded	\$3,900,000	\$3,700,914	\$7,142,159	\$9,081,799	\$2,214,000	N/A
<b>2011</b>	\$38,166,117	\$2,657,411	\$13,938,587	\$27,824,033	Concluded	\$1,315,700	\$4,731,422	\$4,568,160	\$12,313,115	Concluded	\$4,644,099

## Summary of Changes in TB R&D Investment, 2005-2011

Year	Total TB R&D Investment	Change over Previous Year (\$)	Change over Previous Year (%)	Change over 2005 (\$)	Change over 2005 (%)
2005	\$357,426,121				
2006	\$417,824,708	\$60,398,587	16.9%	\$60,398,587	16.9%
2007	\$473,920,682	\$56,095,974	13.4%	\$116,494,561	32.6%
2008	\$491,476,917	\$17,556,235	3.7%	\$134,050,796	37.5%
2009	\$619,209,536	\$127,732,619	26.0%	\$261,783,415	73.2%
2010	\$630,446,462	\$11,236,926	1.8%	\$273,020,341	76.4%
2011	\$649,648,183	\$19,201,721	3.0%	\$292,222,062	81.8%

# Conclusions

- In 2011, 81 donors invested \$649.6 million on TB R&D, an 82% increase over 2005 levels, but only 3% growth since 2010.
- The top 10 TB R&D donors spent \$506.7 million in 2010, or 78% of the total global spend.
- PDPs and research consortia disbursed \$110.2 million in TB R&D in 2011, 7% less than 2010 spending levels.
- Across the five *Global Plan* research areas, operational research was the only research area to meet and surpass its annual target.
- For a seventh consecutive year, TB drug development funding increased *and* made up the largest share of the global TB R&D spend. However, it has the largest funding gap of all the research areas—at \$490 million.
- The 2011 \$649.6 million total still falls \$1.35 billion short of the annual \$2 billion funding target defined by the Global Plan.



# Recommendations

Research to accelerate global TB R&D is gravely underfunded. More resources are needed to see new TB tools come to fruition, particularly in:

- Biomarker discovery to modernize TB drug and vaccine development by demonstrating the progress and effects of treatment or immunity early on, which in turn radically reduces the time and costs of the clinical trials;
- Biomarker discovery for the development of a POC diagnostic test that can identify people with latent TB at risk of developing active TB, as well as biomarkers associated with infection, treatment response, cure, and drug susceptibility or resistance;

# Recommendations

- TB sample banks that support biomarker discovery with well-characterized specimens;
- Late-stage drug and vaccine clinical trials, many of which will take place in high-burden countries with limited laboratory capacity or infrastructure that meet Good Clinical Practice standards; and
- Basic science research to enhance our scientific understanding of TB disease and the *M. tuberculosis* pathogen.