



P A R K E R B . F R A N C I S F E L L O W S H I P P R O G R A M

Survey of 2008 PBF Fellows

Conducted in November 2016

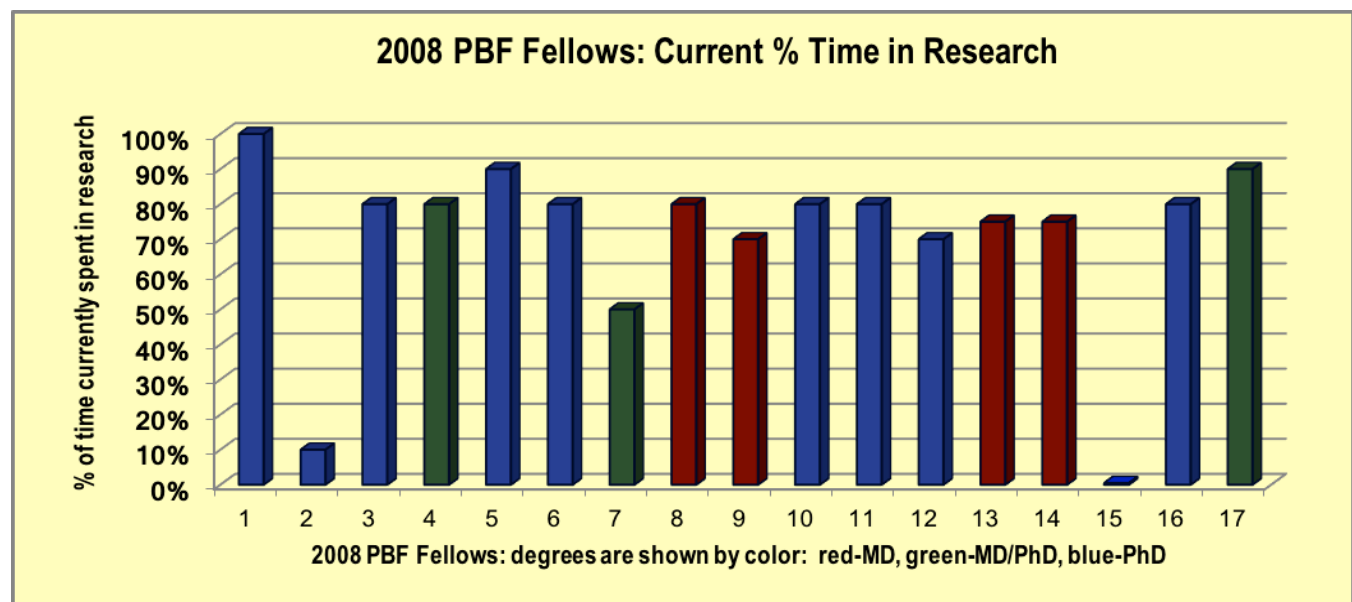
We conducted a survey of the seventeen 2008 PBF Fellows who completed their fellowship in June 2011. We received 16 completed surveys achieving a 94% response rate (n=16). We were able to collect funding and publication data from public databases (PubMed, NIH Reporter) and from the PBF mentor for the one fellow who did not respond to our survey (PhD, now a consultant for a French company providing technical consulting and training services).

We see significant achievement with this group. Sixteen of the 2008 fellows (89%) hold faculty positions at universities and continue pursuing research careers relevant to lung diseases. Seven hold Assistant Professor positions, two hold equivalent faculty positions, and eight have been promoted rapidly to Associate Professor: an MD/PhD in Medicine at Yale, a PhD in Cell & Molecular Biology at Northwestern, an MD/PhD in Radiation Oncology at Johns Hopkins, an MD in Medicine at Brigham & Women's Hospital, an MD in Medicine at the University of Washington, and a PhD in Medicine and Bioengineering at the University of Pittsburgh.

Despite the current funding environment, the 2008 PBF Fellows have been successful in obtaining research funding with a total of \$43.7M in direct research dollars since receiving their PBF Fellowship. Eight have received more than \$2M, four report more than \$3M, two report more than \$4M, one fellow has received more than \$7.5M, and one fellow has received more than \$11M.

We also see very strong publications records in this group; eight have more than three publications per year; six have more than 2 publications per year as 1st, 2nd or last author.

The chart below shows the 2008 PBF Fellows by the percent of time currently spent in research; the degrees held are shown by color, red for MDs, green for MD/PhDs, and blue for PhDs.



NOTE: Fellow #15 is a PhD working for a private company as a consultant.

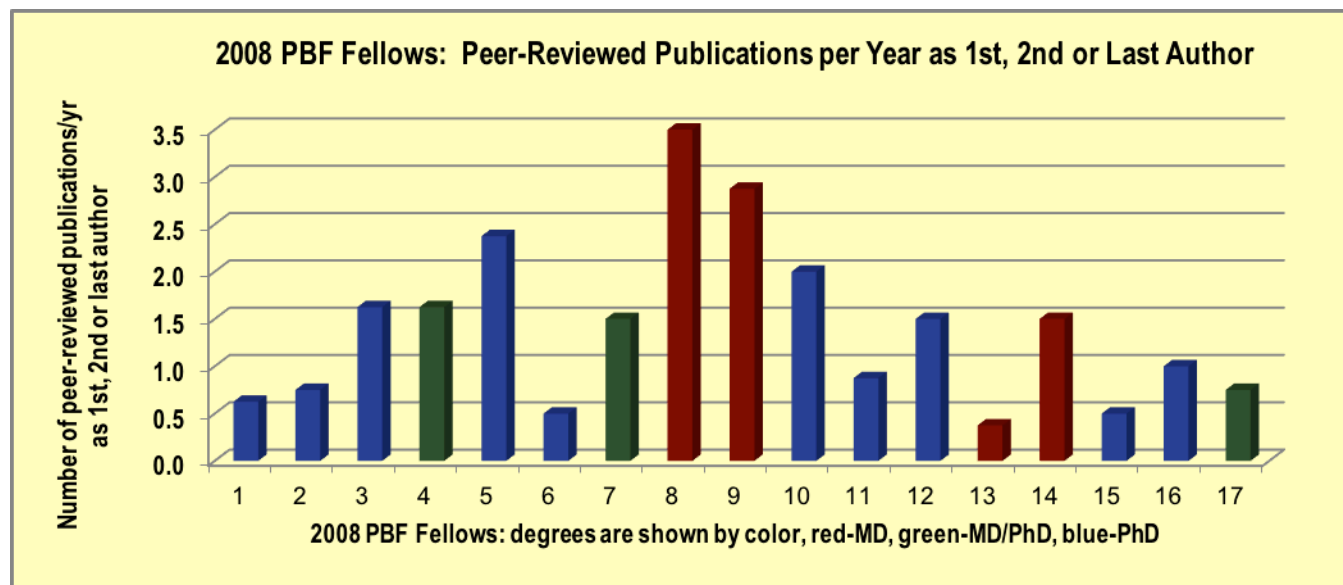
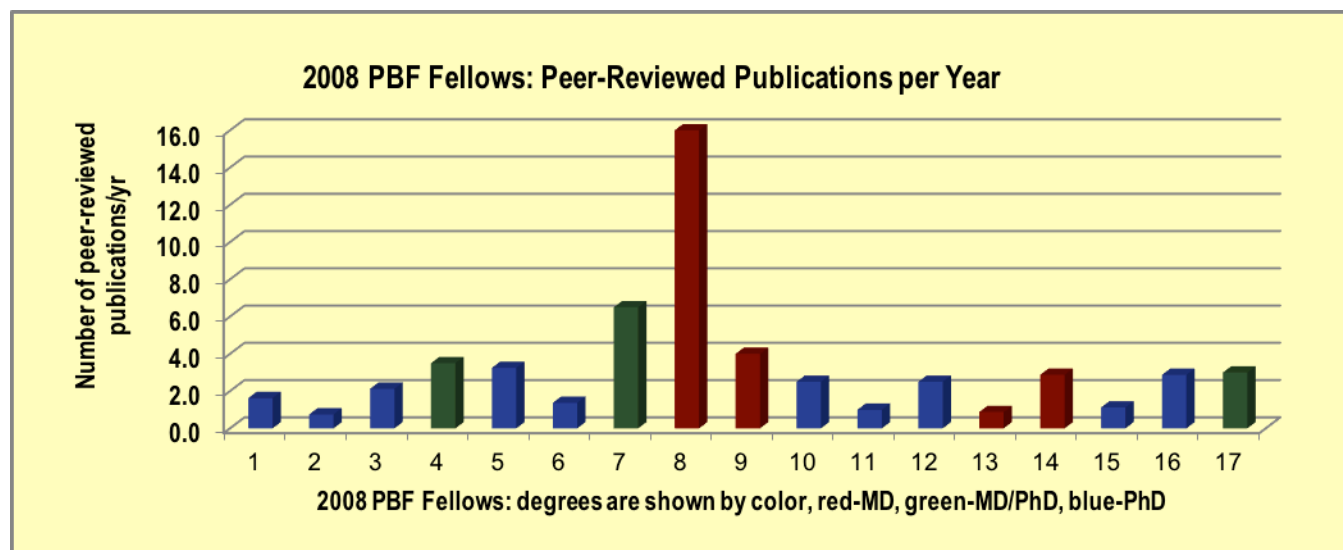
For comparison with the 2008 PBF Fellows, Table 1 below shows the five-year post-PBF Fellowship retention rates in academic research for the 2003-2007 PBF Fellows and the overall retention rate for the 1976-2006 PBF Fellows who responded to our 2009 survey.

TABLE 1: Retention rates in academic research for PBF Fellows Shown are five-year retention rates for 2003-2008 fellows and overall retention rate for 1976-2006 fellows						
Survey Group	n	Past PBF Fellows still in academic research	no research effort	1-49% effort	50-74% effort	≥ 75% effort
1976-2006 Fellows	365	83% (n=303)	17% (n=62)	27% (n=100)	23% n=84)	33% (n=119)
Class of 2003	12	100% (n=12)	0	17% (n=2)	33% (n=4)	50% (n=6)
Class of 2004	15	100% (n=15)	0	13% (n=2)	47% (n=7)	40% (n=6)
Class of 2005	17	76% (n=13)	23.5% (n=4)	6% (n=1)	47% (n=8)	23.5% (n=4)
Class of 2006	15	73% (n=11)	27% (n=4)	0	20% (n=3)	53% (n=8)
Class of 2007	18	89% (n=16)	11% (n=2)	6% (n=1)	11% (n=2)	72% (n=13)
Class of 2008	17	94% (n=16)	6% (n=1)	6% (n=1)	12% (n=2)	76% (n=13)

With respect to publication productivity, the overall productivity has been high with 448 peer-reviewed publications in the eight years since the beginning of their PBF Fellowship. Forty-seven percent (8 of 17) of the 2008 PBF Fellows have publication productivity higher than the averages found in our 2009 survey of 365 PBF Fellows from years 1976-2006.

TABLE 2 Peer-Reviewed Publications per Year			
Survey Group	n	Average Pubs/Yr	Average Pubs/Yr as 1 st , 2 nd , or last author
PBF Fellows, years 1976-2006	365	2.7	1.8
PBF Fellows, class of 2003	12	1.7	1.3
PBF Fellows, class of 2004	15	3.9	2.1
PBF Fellows, class of 2005	17	2.1	1.3
PBF Fellows, class of 2006	15	2.5	1.6
PBF Fellows, class of 2007	18	2.6	1.2
PBF Fellows, class of 2008	17	3.3	1.5

The two charts below show the number of peer-reviewed publications per year and the number of peer-reviewed publications per year in which the fellow is either 1st, 2nd or last (senior) author.



A number of the reported publications appear in high-impact scientific journals (see Table 3 below). A scientific journal's impact factor is a measure reflecting the average number of citations to recent articles. It is frequently used as a proxy for the relative importance of a journal within its field, with journals with higher impact factors deemed to be more important than those with lower ones.

TABLE 3: 2008 PBF Fellows: Peer-reviewed publications in high-impact journals since PBF Fellowship		
Journal	Impact Factor	# of Publications
New England Journal of Medicine	59.6	5
JAMA	37.7	2
Science	34.7	1
Lancet Respiratory Medicine	15.3	1
American Journal of Respiratory & Critical Care Medicine	13.1	23
Journal of Clinical Investigation	12.6	3
Proceedings of the National Academy of Sciences	9.4	5
Journal of Immunology	4.9	7
Am Journal of Physiology: Lung Cellular & Molecular Physiology	4.7	8
American Journal of Respiratory Cellular & Molecular Biology	4.1	9

The seventeen 2008 PBF Fellows have received \$43.7M direct research dollars in the eight years since their PBF Fellowship award. The cost of supporting this group of fellows was \$2.55M, yielding a multiplier (ROI) of 17.1. The chart below and Table 4 on page 5 show data on direct research dollars received in the eight years following the PBF Fellowship start date.

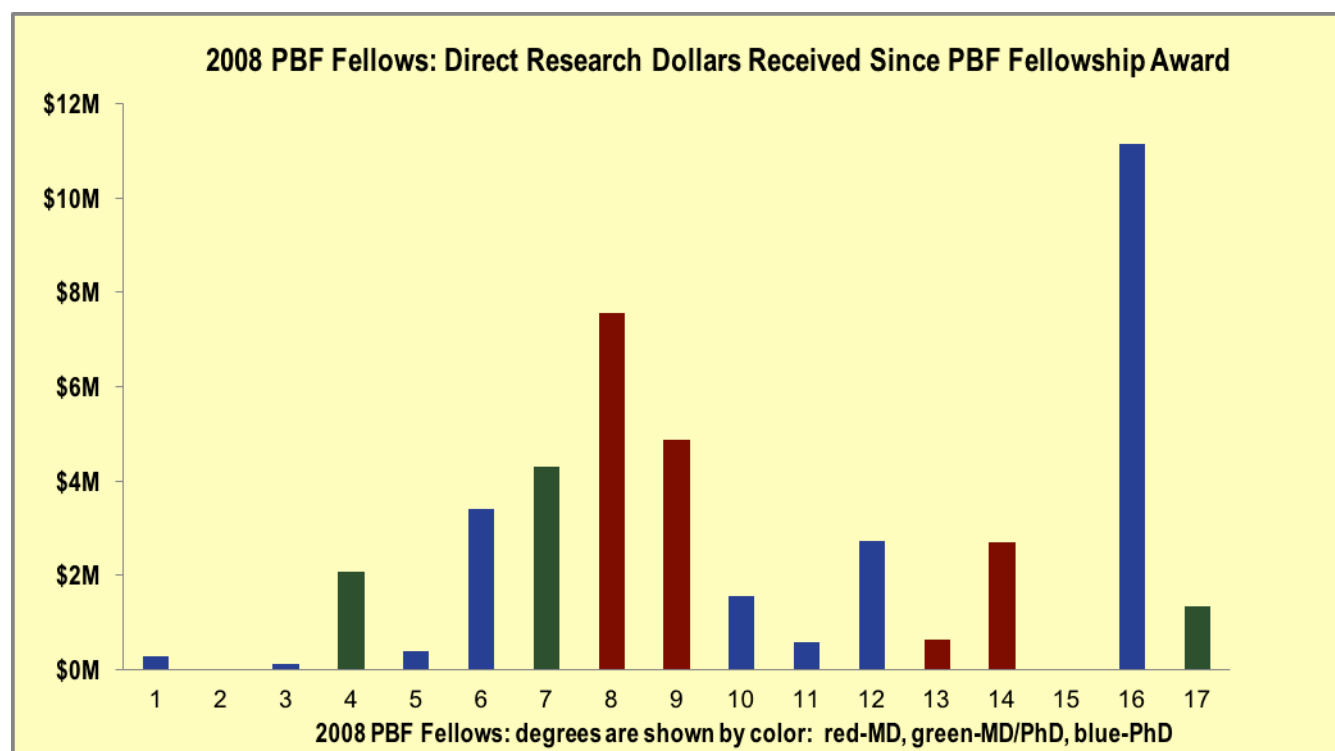


TABLE 4

Direct research dollars received during 8-year period following PBF Award start date

Survey Group	n	PBF Funding for Fellows Group	Total research dollars rec'd by survey group since PBF Fellowship	ROI
PBF Fellows, class of 2003	12	\$1.73M	\$20.78M	14.5
PBF Fellows, class of 2004	15	\$1.86M	\$27.83M	14.7
PBF Fellows, class of 2005	17	\$2.24M	\$24.67M	11.0
PBF Fellows, class of 2006	15	\$2.07M	\$40.7M	19.7*
PBF Fellows, class of 2007	18	\$2.59M	\$37.8M	14.6
PBF Fellows, class of 2008	17	\$2.55M	\$43.7M	17.1**

* ROI reflects the extraordinarily high research funding received by two 2006 PBF Fellows. ROI for the other 13 fellows is 6.8.

** ROI reflects the extraordinarily high research funding received by two 2008 PBF Fellows. ROI for the other 15 fellows is 11.1.

CONCLUSIONS

Sixteen of the seventeen 2008 PBF Fellows continue conducting research relevant to lung diseases in academic environments.

The 2008 PBF Fellows have been productive, both in terms of publications and grant funding. Eleven of the 17 fellows have received one or more NIH K or R level awards (for a total of 16 R01 and 6 K awards). The seventeen 2008 awardees have received more \$43.7M in direct research funding in the eight years since receiving the PBF Fellowship award. The cost of supporting this group of fellows was \$2.55M. In other words, with an ROI of 17.1, this group has already received more than 17 times the research funding the Francis Family Foundation invested to support their fellowships.