# **Supporting Information**

### Dias et al. 10.1073/pnas.0915002107

#### SI Methods

**Data Acquisition and Sorting.** The bibliography was assembled from the Institute for Scientific Information Web of Science, using the following search strings: "anthrax OR anthracis OR anthraxin" for *Bacillus anthracis*, "Ebola" for Ebola virus, and "Klebsiella AND pneumoniae" for *Klebsiella pneumoniae*. The same search criteria were used with the two funding database search engines. Microbial strains were classified as "Live-pathogen" or "Nonpathogen" according to the key in Table S4. Only research papers that would have been subject to the biosecurity laws and grants supporting such research were retained. The tally of papers in the final dataset is presented in Table S5, and the funding data are summarized in Table S6.

**Sensitivity Analyses.** Sensitivity analyses on the effects of the choice of boundary year, inclusion of boundary year papers, and the lag between funding award and publication date on the regression model results are presented in Tables S7—S11. The odds ratios derived from the regression coefficient of the "law" variable are reported in Tables S7–S9. This is the key variable in this study. In the sensitivity analysis, we look to see if the significance of these odds ratios is changed by variations in the assumptions. The significance of the odds ratios was the same whether 2002 or 2003 was used as the boundary year and was very similar whether 2002 papers were removed or left in the dataset. Also, the regression results were remarkably similar for alternative models with different representations of the funding lag. This indicates that our main conclusions are robust for the particular definition of the appropriate funding lag.

An examination of the statistical significance of coefficients of the lagged funding time series (Table S10–S11) shows that several different definitions of the relationship between funding and the dependent variables have merit. There are regressions where the coefficient for a 1-year lag has a greater statistical significance, some (fewer) regressions where a 2-year lag is a better predictor, and others where using both 1- and 2-year lags together works the best. One- or 2-year lagged funding always provided better predictors of outcomes than no lag or a 3-year lag. Because the choice of funding lag does not significantly alter the main conclusions, we decided to use a 1-year lag in the main text.

**Phone Interview Questions.** These questions were e-mailed to select agent researchers. Anonymity was promised. The survey was approved by Carnegie Mellon University's Institutional Review Board.

- (*i*) Have you changed the way you conduct research as the result of the USA PATRIOT Act or the Bioterrorism Preparedness Act? Please specify.
- (*ii*) Did the laws stymie your research work in any way? Please describe.
- (iii) Was your ability to collaborate with other scientists, particularly foreign partners, altered by the legislation?
- (iv) Were there any other outcomes, negative or positive, to your own work and to the field in general that you attribute to the legislation? Please specify.
- (v) Other than the laws, what were the two most important events or developments that changed select agent research in the last 10 years? What were the changes? When did they occur?



Fig. S1. Schematic of the collaboration networks of research organizations working with live pathogenic Ebola virus. A link between two nodes indicates a coauthorship involving members of the institutions. (A) Publication network 1997–2001. (B) Publication network 2003–2007. Red nodes indicate US educational or research institutions; blue, US government; green, US military; and yellow, foreign institutions collaborating with US institutions. CDC: Centers for Disease Control and Prevention; NIH: National Institutes of Health; USAMRIID: United States Army Medical Research Institute for Infectious Diseases.

	"L	ive pathogen"		"N	"Non-pathogen"		
US sector	1997–2001	2003–2007	Change	1997–2001	2003–2007	Change	
		B. anthracis	network				
Academy/community*	41%	44%	7%	40%	44%	10%	
Government	29%	11%	-62%	29%	11%	-62%	
Military	12%	19%	58%	6%	19%	217%	
Non-US	18%	26%	44%	26%	26%	0%	
		Ebola virus	network				
Academy/community	30%	30%	0%	43%	39%	-9%	
Government	32%	22%	-31%	21%	14%	-33%	
Military	6%	20%	233%	11%	9%	-18%	
Non-US	32%	28%	-13%	24%	39%	63%	
		K. pneumonia	ae network				
Academy/community	45%	24%	-48%	NS	41%	NS	
Government	35%	18%	-47%	NS	9%	NS	
Military	43%	37%	-15%	NS	0	NS	
Non-US	37%	39%	6%	NS	50	NS	

Table S1.	Share of degree centrality by institutional class for US coauthorship networks in the
5 years p	receding and following the passage of US biosecurity legislation

Coauthorship networks of papers having at least one US author were included. NS, insufficient number of institutions to calculate share of degree centrality.

\*Academic/commercial category includes universities, hospitals, nonprofit institutions, and commercial laboratories.

<

### Table S2. Institutions ranked by number of research papers published

	No. of papers		Share of	Share of papers (%)		Rank	
Institution name	1997–2001	2003–2007	1997–2001	2003–2007	1997–2001	2003–2007	
	"Live pathogen" B. a	nthracis publica	ations				
USAMRIID	10	43	32	34	1	1	
Northern Arizona University	10	10	32	8	1	2	
University of Texas	2	10	6	8	6	2	
Centers for Disease Control and Prevention	0	10	0	8	12	2	
US Navy	1	g	3	/	12	5	
Battelle Memorial Institute	0	9	0	/	12	5	
Institute of Conomic Posoarch	0	6	0	5	12	7	
University of New Mexico	0	6	0	5		7	
Johns Hopkins University	0	5	0	4		10	
Translational Genomics Research Institute	0	5	0	4		10	
Los Alamos National Laboratory	8	3	26	2	3	15	
University of Michigan	2	3	6	2	6	15	
Louisiana State University	8	2	26	2	3	25	
University of Scranton	3	2	10	2	5	25	
	"Live pathogen" Ebo	ola virus publica	itions				
USAMRIID	22	44	51	51	2	1	
National Institutes of Health	4	29	9	33	4	2	
Centers for Disease Control and Prevention	23	27	53	31	1	3	
University of Manitoba	0	12	0	14		4	
Public Health Agency of Canada	0	10	0	11		5	
University of Wisconsin	2	9	5	10	6	6	
University of Tokyo	1	9	2	10	14	6	
Uniformed Services University of Health Sciences	2	8	5	9	6	8	
University of Marburg – Germany	1	8	2	9	14	8	
University of Pennsylvania	0	6	0	7	-	10	
Emory University	6	5	14	6	3	11	
Scripps Research Institute	2	2	5	2	6	18	
US Army	2	2	5	2	6	۵۱ دد	
National Institute of Virology – Zaire	4	0	9	0	4	82	
	"Non-nathogen" B a	nthracis nublic:	ations				
National Institutes of Health	18	73	26	14	2	1	
Harvard University	22	40	32	8	- 1	2	
University Michigan	4	24	6	5	4	3	
USAMRIID	3	24	4	5	7	3	
US Food and Drug Administration	2	24	3	5	9	3	
University of Chicago	1	23	1	5	16	6	
University of Texas	7	22	10	4	3	7	
Scripps Research Institute	0	21	0	4		8	
University of Maryland	1	20	1	4	16	9	
Centers for Disease Control and Prevention	0	18	0	4		10	
University of Alabama	1	16	1	3	16	11	
Burnham Institute of Medical Research	1	11	1	2	16	12	
University of California, San Diego	1	11		2	16	12	
University of California, Los Angeles	0	11	0	2	55	12	
Yeshiva University	2	10	3	2	9	15	
	"Non-pathogen" Ebc	ola virus publica	ations		-	-	
University of Wisconsin	5	12	25	21	2	1	
University of Tokyo	4	12	20	21	3	1	
University of Pennsylvania	3	12	15	21	б	1	
	U	10 7	U 0	וא 1 כ	2	4 E	
Janan Science and Technology Agency	4	6	20	1Z 11	כ כר	د د	
Centers for Disease Control and Prevention	U R	5	0	۱۱ ۵	25 1	0 7	
Hokkaido University – Japan	4	5	20	9	י ג	, 7	
Science Centre Human and Animal Health – Canada	a 0	4	0	7	2	, 9	

#### Table S2. Cont.

PNAS PNAS

	No. of papers		Share of papers (%)		Rank	
Institution name	1997–2001	2003–2007	1997–2001	2003–2007	1997–2001	2003–2007
Public Health Agency – Canada	0	4	0	7		9
University of Manitoba – Canada	0	4	0	7		9
University of California, San Francisco	2	1	10	2	8	18
Harvard University	3	0	15	0	6	60
Microbiological Associates	2	0	10	0	8	60
National Institute of Medical Research (United Kingdom)	2	0	10	0	8	60

USAMRIID, US Army Medical Research Institute for Infectious Diseases.

## Table S3. Institutional share of degree centrality for "live-pathogen" and "non-pathogen" select agent networks

	1997–2	2001	2003–2007	
Institution	SDC (%)	Rank	SDC (%)	Rank
B. anthraci	is network			
USAMRIID	2	6	7	1
Northern Arizona University	18	1	3	2
Johns Hopkins University			3	3
University of Texas	5	3	2	4
Institute of Genomic Research			2	5
US Navy	0*		2	6
Robert Koch Institute Germany			2	7
Battelle Memorial Institute			2	7
Centers for Disease Control and Prevention			2	8
Translational Genomics Research Institute			2	9
University of Oslo Norway	2	6	2	10
Porton Downs - Great Britain			2	10
University of Michigan	3	5	1	11
US Army (excluding USAMRIID)	0		1	12
Louisiana State University	16	2	1	13
National Institutes of Health	2	6	1	13
Los Alamos National Laboratory	16	2	1	14
Duke University	5	3		
Ebola viru	s network			
USAMRIID	6	3	11	1
National Institutes of Health	6	2	10	2
University of Manitoba - Canada			6	3
Centers of Disease Control and Prevention	19	1	6	4
Public Health Agency of Canada			6	5
University of Wisconsin	2	7	5	6
University of Tokyo - Japan	0.01	9	5	6
Uniformed Services University of Health Sciences	0.01	8	3	7
University of Marburg - Germany	0.005	10	3	8
Hokkaido University - Japan	0.01	9	2	9
Emory University	4	6	2	10
University of Pennsylvania			2	10
US Army (excluding USAMRIID)	1	8	1	14
Scripps Research Institute	1	8	1	17
Centre Internationale de Recherches Medicales	1	9	1	17
de Franceville – Gabon				
City University of New York	0.5	10	0.5	18
University of Michigan	1	9	0.1	21
World Health Organization-ZAIRE	6	2		

USAMRIID ,US Army Medical Research Institute for Infectious Diseases. SDC, share of degree centrality. \*Single-institution papers have a DC of 0. A blank indicates no papers by that institution.

Avirulent strains	Virulent strains
B. anthra	cis
4230	9602
6602	17JB
7700	A0843
9131	Ames
14185	ATCC 6605
34F2	ATCC 8705
A16R	EX 3169 - Vollum
A 2 A	Er 5765 = Volidin Forrara
	Mayo 1
ANR-1 ATCC 11966	NCTC 10240 - Vollum
ATCC 11900	
ATCC 14185	KAJ
A/CC 4229	VOIIUM (AICC 14578)
BH441	Zimbabwe
BH445	
Carbosap	
NNRI	
Pasteur I	
RA3R	
RBAF140	
RBAF143	
RBAF144	
RP42	
RPGI	
RPI 686	
SM11	
SM95	
SM95	
Sterne (7702)	
STI	
STI-1	
UM23C1-1	
UM44 = Weymouth	
UT500	
V770-NP1-R	
VNR-1	
Weybridge = Sterne	
Ebola vir	
EDOId VII)	us Zaira
Reston	Zaire
Reston-Siena/Philippine-92	Sudan
	Côte D'Ivoire
K. pneumo	niae
215	AF144323-1
277	ATCC 15380
5058	ATCC 25306
52K10	ATCC 43861
ATCC 15050	CG43
CC252	
	USIVI 2020
	EB 4335
DSM/342	EB 5221
F201	К2
I-145	KAY2026
M5a1	KC 4727
NCIB 12204	KC 4989
RU 41740 (Biostim)	KP 62–1
SAP	KP A1
SDF15	IFN 1
SDE20	M426
UN 5058	MGH79579
	1011/03/0

# Table S4. Classification of pathogenic and nonpathogenic strains of *B. anthracis*, Ebola virus, and *K. pneumoniae*

Table S4.. Cont.

PNAS PNAS

Avirulent strains	Virulent strains
UN 727	NCBI 418
UN 729	NCTC 418
UN4357	
UNF 932	

Table S5. Peer-reviewed papers meeting relevance criteria, by organism and type of research

	B. an	thracis	Ebola virus		K. pneumoniae	
Year	"Live-pathogen"	"Non-pathogen"	"Live-pathogen"	"Non-pathogen"	"Live-pathogen"	"Non-pathogen"
1992	2	5	4	2	46	6
1993	2	7	3	0	35	9
1994	2	13	1	0	36	9
1995	3	10	3	1	47	6
1996	3	6	3	4	43	4
1997	3	5	2	1	39	6
1998	4	10	5	4	55	8
1999	11	24	17	5	39	6
2000	6	9	8	5	52	7
2001	7	20	11	5	57	7
2002	22	26	15	6	52	1
2003	11	72	21	5	59	4
2004	29	83	11	6	70	5
2005	28	106	10	13	74	1
2006	33	119	14	14	62	4
2007	26	129	31	18	72	5
Total	192	644	159	89	838	88
1997–2001	31	68	43	20	242	34
2003–2007	127	509	87	56	337	19

Table S6.	Average annual US	5 funding for	research on o	f B.
anthracis,	Ebola virus, and K.	pneumoniae	(in millions of	\$US)

Year	B. anthrac	is Ebola viru	us K. pneumoniae
1993	0.45	_	1.49
1994	0.45	—	1.53
1995	0.63	—	1.87
1996	0.63	0.70	1.81
1997	1.13	0.75	2.15
1998	1.82	1.13	2.47
1999	2.60	1.18	3.07
2000	3.48	0.70	2.77
2001	4.40	0.72	3.16
2002	12.45	1.37	3.71
2003	65.48	10.35	3.97
2004	79.99	13.70	4.57
2005	121.62	14.64	4.61
2006	118.34	13.48	4.14

Nonresearch grants were purged. Data are from the RAND Corporation's RaDiUS database.

Boundary year	B. anthracis	Ebola virus	K. pneumoniae
Odds ratio o	f "live-pathogen"	research after b	oundary year
2002	0.54*	2.25	1.57
2003	1.70	1.48	1.29
Odds ra	tio of all author e	ntry after bound	lary year
2002	9.63***	4.41***	1.11
2003	9.25***	0.06***	1.34***
Odds ra	atio of all author	exit after bound	arv vear
2002	1.87***	1.69**	0.97
2003	0.52***	9.87***	2.05***
	of career scientis	t entry after bou	indary year
2002	3.91^^^	2.42^^^	0.71
2003	20.94***	0.18	0.43***
Odds ratio	o of career scienti	st exit after bou	ndary year
2002	0.82	4.81***	1.12
2003	0.43	0.12	3.16***
* <i>P</i> ≤ 0.10.			
** <i>P</i> ≤ 0.05.			
*** <i>P</i> ≤ 0.01.			
<b>T</b>			
Table S8. Sensi papers published	tivity analysis: Ef 1 in 2002	fect of includin	g or excluding
Vear 2002 papers	B anthracis	Ebola virus	K nneumoniae
	D. antinacis	Ebola vilus	R. priedmoniae
Odds ra	tio of "live-patho	gen" research af	ter 2002
Papers omitted	0.54*	2.25	1.57
Papers included	0.44***	2.16	0.93
Od	ds ratio of all aut	hor entry after 2	002
Papers omitted	9.63***	4.41***	1.11
Papers included	5.34***	4.07***	1.35***
0	dds ratio of all aut	thor exit after 20	102
Papers omitted	1 87***	1 69**	0.97
Den en la de de d	1.07	1.05	0.07

Papers included	5.34***	4.07***	1.35***
Odds	s ratio of all aut	hor exit after 200	2
Papers omitted	1.87***	1.69**	0.97
Papers included	2.49***	1.84***	0.98
Odds ra	tio of career scie	entist entry after	2002
Papers omitted	3.91***	2.42***	0.71
Papers included	3.20***	2.52***	0.67**
Odds ra	atio of career sci	entist exit after 2	002
Papers omitted	0.82	4.81***	1.12
Papers included	0.88	3.72***	1.46*

 $P \le 0.10.$  $P \le 0.05.$  $P \le 0.01.$ 

Table S7. Sensitivity analysis: Effect of choice of boundary year

Funding lag	B. anthracis	Ebola virus	K. pneumoniae				
Odds ratio of	"live-pathoger	" research afte	er 2002				
No lag	0.49	NC	1.57				
1-year lag	0.54*	2.25	1.57				
2-year lag	0.62*	1.28	2.43				
3-year lag	0.58**	0.88	2.27				
1- and 2-year lags	0.40***	2.50	2.03				
1-, 2-, and 3-year lags	0.31***	2.21	1.68				
Odds ratio	o of all author	entry after 20	02				
No lag	4.37***	15.02***	0.99				
1-year lag	9.63***	4.41***	1.11				
2-year lag	10.73***	2.93***	0.92				
3-year lag	11.07***	2.41***	0.92				
1- and 2-year lags	7.55***	4.73***	1.23**				
1-, 2-, and 3-year lags	5.33***	4.03***	1.33**				
Odds ra	tio of author	exit after 2002					
No lag	2.38***	1.54	1.19				
1-year lag	1.87***	1.69**	0.97				
2 year lag	1.82***	2.00***	0.78**				
3 year lag	2.00***	1.74***	0.54***				
1- and 2-year lags	2.40***	1.60**	0.84				
1-, 2-, and 3-year lags	3.04***	1.43	0.65***				
Odds ratio o	of career scient	ist entry after	2002				
No lag	1.26	4.72	0.67*				
1-year lag	3.91***	2.42***	0.71				
2-year lag	3.68***	1.72**	0.89				
3-year lag	5.61***	1.37	1.07				
1- and 2-year lags	3.78***	2.29***	0.77				
1-, 2-, and 3-year lags	1.38	2.11**	0.93				
Odds ratio of career scientist exit after 2002							
No lag	0.74	NC	1.40				
1-year lag	0.82	4.81***	1.12				
2-year lag	0.93	3.29***	0.75				
3-year lag	1.72	2.63***	0.60**				
1- and 2-year lags	1.49	6.51***	1.19				
1-, 2-, and 3-year lags	2.13	5.87***	0.87				

Table S9.	Sensitivity a	analysis:	Funding	lag	influence	on	odds
ratio of eff	ect of laws						

NC, not calculable. \* $P \le 0.10$ . \*\* $P \le 0.05$ . \*\*\* $P \le 0.01$ .

	No lag	1-year lag	2-year lag	3-year lag	1- and 2-year lags	1- to 3-year lags		
Likelihood of "live-pathogen" B. anthracis research after 2002								
Constant	-0.938***	-0.914***	-0.818***	-0.776***	-0.828***	-0.791***		
Law	-0.712	-0.608*	-0.482*	-0.544**	-0.928***	-1.162***		
Funding <sub>t</sub>	0.003							
Funding <sub>t-1</sub>		0.002			0.011**	0.015**		
Funding <sub>t-2</sub>			-0.001		-0.010**	-0.006		
Funding <sub>t-3</sub>				-0.002		-0.008		
	Liko	libood of "liv	o pothogon"		search after 2002			
Constant			0 712***		0 759***	0 720***		
Constant	1.005***	0.775***	0.715***	0.058***	0.756****	0.750***		
Law	4.272**	0.812	0.250	-0.129	0.917	0.791		
Fundingt	-0.379***				0.400			
Funding <sub>t-1</sub>		-0.100**			-0.138*	-0.083		
Funding <sub>t-2</sub>			-0.053*		0.035	-0.082		
Funding <sub>t-3</sub>				-0.012		0.094		
	Likelih	ood of "live-	oathogen" <i>K.</i>	pneumoniae	research after 2002			
Constant	1.191**	1.417**	2.058***	1.971***	1.808***	1.560*		
Law	0.452	0.450	0.889	0.821	0.706	0.520		
Funding,	0.300							
Funding <sub>t-1</sub>		0.241			0.304	0.410		
Funding $_{t-2}$			-0.018		-0.227	-0.462		
Funding <sub>t-3</sub>				0.023		0.255		
*P < 0.10								

Table S10. Sensitivity analysis: Logistic regression model coefficients,  $\alpha_{\mu}$  varying the specification of funding lag (one model per column)

PNAS PNAS

 $^{**P} \leq 0.05.$ \*\*\**P* ≤ 0.01.

Dias et al. www.pnas.org/cgi/content/short/0915002107

•	-	, ,				
	No lag	1-year lag	2-year lag	3-year lag	1- and 2-year lags	1- to 3-year lags
	Likeli	ihood of auth	or entries to	B. anthracis r	research after 2002	
Constant	-4.291***	-4.215***	-4.122***	-4.073***	-4.129***	-4.086***
Law	1.474***	2.265***	2.373***	2.404***	2.022***	1.673***
Funding <sub>t</sub>	0.012***					
Funding <sub>t-1</sub>		0.003***			0.010***	0.015***
Funding <sub>t-2</sub>			0.0004		-0.007***	0.0005
Funding <sub>t-3</sub>				-0.002		-0.017***
	Likel	ihood of auth	or entries to	Ebola virus r	esearch after 2002	
Constant	-3.333***	-3.319***	-3.222***	-3.145***	-3.194***	-3.106***
Law	2.710***	1.484***	1.075***	0.878***	1.553***	1.393***
Funding <sub>t</sub>	-0.115***					
Funding <sub>t-1</sub>		-0.016			-0.111***	-0.071***
Funding <sub>t-2</sub>			0.018*		0.096***	-0.012
Funding <sub>t-3</sub>				0.045***		0.095***
	Likelih	ood of autho	r entries to K	. pneumoniae	e research after 2002	
Constant	-2.970***	-2.861***	-2.954***	-2.961***	-2.566***	-2.472***
Law	-0.009	0.104	-0.088	-0.089	0.210**	0.282**
Funding <sub>t</sub>	0.092**					
Funding <sub>t-1</sub>		0.055			-0.423***	-0.477***
Funding <sub>t-2</sub>			0.128***		0.399***	0.522***
Funding <sub>t-3</sub>				0.143***		-0.119
	Likeli	hood of auth	or exits from	B. anthracis	research after 2002	
Constant	-1.474***	-1.454***	-1.466***	-1.471***	-1.459***	-1.460***
Law	0.868***	0.627***	0.599***	0.692***	0.877***	1.113***
Funding <sub>t</sub>	-0.0002					
Funding <sub>t-1</sub>		0.004***			-0.008***	-0.012***
Funding <sub>t-2</sub>			0.006***		0.012***	0.007**
Funding <sub>t-3</sub>				0.008***		0.012***
	Likel	ihood of auth	or exits from	Ebola virus r	esearch after 2002	
Constant	-1.358***	-1.513***	-1.559***	-1.506***	-1.574***	-1.517***
Law	0.430	0.525**	0.694***	0.554***	0.469**	0.359
Funding <sub>t</sub>	-0.011					
Funding <sub>t-1</sub>		0.001			0.044	0.064**
Funding <sub>t-2</sub>			-0.013		-0.041*	-0.104***
Funding <sub>t-3</sub>				-0.004		0.061**
	Likeliho	ood of author	exits from K	. pneumonia	e research after 2002	
Constant	-0.581***	-0.987***	-1.279***	1.577***	-1.190***	-1.230***
Law	0.178	-0.033	-0.244**	-0.610***	-0.175	-0.433***
Funding <sub>t</sub>	-0.086					
Funding <sub>t-1</sub>		0.084			-0.091	0.040
Funding <sub>t-2</sub>			0.213***		0.268***	-1.088***
Funding <sub>t-3</sub>				0.413***		1.418***
	Likelihoo	od of career a	uthor entries	to B. anthra	cis research after 200	2
Constant	-3.489***	-3.408***	-3.292***	-3.281***	-3.291***	-3.302***
Law	0.233	1.362***	1.302***	1.725***	1.329***	0.323
Funding <sub>t</sub>	0.015***					
Funding <sub>t-1</sub>		0.004*			-0.001	0.023***
Funding <sub>t-2</sub>			0.006**		0.007	0.012**
Funding <sub>t-3</sub>				-0.009**		-0.047***
	Likeliho	od of career a	author entries	s to Ebola vir	us research after 200	2
Constant	-2.749***	-2.672***	-2.584***	-2.512***	-2.571***	-2.485***
Law	1.552	0.884***	0.541**	0.313	0.830***	0.747**
Funding <sub>t</sub>	-0.083					
Funding <sub>t-1</sub>		-0.051**			-0.068	-0.063
Funding <sub>t-2</sub>			-0.038		0.017	-0.010
Fundina+_?				-0.023		0.037
J5	Likelihood	of career aut	thor entries t	o K. pneumo	niae research after 20	002
Constant	-2.675***	-2.607***	-2.306***	-2.014***	-2.469***	-2.219***
Law	-0.406*	-0.340	-0.116	0.067	-0.262	-0.075
Fundina≁	0.044					
Fundina <sub>+-1</sub>		0.013			0.292	0.498*
Funding			-0.122		-0.361*	0.219

Table S11.	Sensitivity analysis: Logistic regression model coefficients, $\beta_{ii}$ varying the
specification	n of funding lag

#### Table S11. Cont.

	No lag	1-year lag	2-year lag	3-year lag	1- and 2-year lags	1- to 3-year lags
Funding <sub>t-3</sub>				-0.280*		-1.045**
	Likelihoo	d of career a	uthor exits fr	om <i>B. anthra</i>	cis research after 200	2
Constant	-3.202***	-3.166***	-3.116***	-3.138***	-3.105***	-3.129***
Law	-0.301	-0.198	-0.074	0.541	0.400	0.758
Funding <sub>t</sub>	0.013*					
Funding <sub>t-1</sub>		0.019***			-0.011	-0.015*
Funding <sub>t-2</sub>			0.021***		0.028***	0.024***
Funding <sub>t-3</sub>				0.022***		0.010
	Likelihoo	od of career a	uthor exits fi	rom Ebola vir	us research after 200	2
Constant	-2.890***	-3.043***	-3.196***	-3.155***	-3.156***	-3.096***
Law	4.681***	1.571***	1.189***	0.967***	1.873***	1.770***
Funding <sub>t</sub>	-0.315***					
Funding <sub>t-1</sub>		-0.055**			-0.183***	-0.154**
Funding <sub>t-2</sub>			-0.003		0.135**	0.064
Funding <sub>t-3</sub>				0.027		0.058
	Likelihood	of career aut	hor exits from	m <i>K. pneumo</i>	niae research after 2	002
Constant	-3.447***	-3.860***	-4.391***	-4.423***	-3.751***	-3.764***
Law	0.339	0.110	-0.288	-0.516**	0.171	-0.136
Funding <sub>t</sub>	0.353**					
Funding <sub>t-1</sub>		0.573***			-0.529**	-0.289
Funding <sub>t-2</sub>			0.838***		1.120***	-0.312
Funding <sub>t-3</sub>				0.993***		1.387***

PNAS PNAS

\**P* ≤ 0.10. \*\**P* ≤ 0.05. \*\*\**P* ≤ 0.01.