

Table S10: Scientific publications in international collaboration, 2008-2014

	Total number of publications	Number of publications with international co-authors	Publications with international co-authors (%)	Average citation rate	Percentage of papers in 10% most-cited papers
	2008–2014	2008–2014	2008–2014	2008–2012	2008–2012
North America					
Canada	357 500	180 314	50.4	1.25	13.1
United States of America	2 151 180	749 287	34.8	1.32	14.7
Latin America					
Argentina	51 685	23 847	46.1	0.93	7.1
Belize	86	77	89.5	1.20	14.6
Bolivia	1 309	1 230	94.0	1.40	11.6
Brazil	232 381	65 925	28.4	0.74	5.8
Chile	34 624	21 220	61.3	0.96	9.0
Colombia	18 558	11 308	60.9	0.99	9.0
Costa Rica	2 821	2 300	81.5	1.15	13.2
Ecuador	2 529	2 280	90.2	1.15	12.1
El Salvador	232	219	94.4	1.19	14.4
Guatemala	650	598	92.0	0.95	8.8
Guyana	121	89	73.6	0.90	3.1
Honduras	289	282	97.6	0.97	6.1
Mexico	68 383	30 721	44.9	0.82	6.4
Nicaragua	400	386	96.5	1.04	12.2
Panama	2 074	1 932	93.2	1.56	16.6
Paraguay	372	338	90.9	0.99	8.7
Peru	4 339	3 916	90.3	1.29	12.5
Suriname	81	68	84.0	0.77	7.5
Uruguay	4 728	3 330	70.4	1.09	9.8
Venezuela	7 450	4 183	56.1	0.69	5.6
Caribbean					
Antigua and Barbuda	21	20	95.2	–	–
Bahamas	132	119	90.2	1.01	6.6
Barbados	380	297	78.2	0.93	9.8
Cuba	5 481	3 964	72.3	0.67	5.5
Dominica	57	53	93.0	–	–
Dominican Rep.	308	292	94.8	0.97	9.6
Grenada	701	654	93.3	0.64	4.4
Haiti	257	251	97.7	1.62	14.8
Jamaica	1 108	557	50.3	0.48	4.0
St Kitts and Nevis	102	92	90.2	1.05	11.3
St Lucia	15	14	93.3	–	–
St Vincent and the Grenadines	12	11	91.7	–	–
Trinidad and Tobago	1 073	661	61.6	0.61	5.6
European Union					
Austria	81 174	53 248	65.6	1.30	14.0
Belgium	115 353	74 806	64.8	1.39	15.3
Bulgaria	15 476	8 480	54.8	0.91	7.1
Croatia	20 248	8 861	43.8	0.83	7.0
Cyprus	4 540	3 453	76.1	1.28	13.5
Czech Rep.	64 149	32 788	51.1	0.97	8.8
Denmark	85 311	52 635	61.7	1.50	16.6
Estonia	8 852	5 381	60.8	1.26	13.0
Finland	67 217	38 945	57.9	1.27	12.7
France	438 755	238 170	54.3	1.20	12.7
Germany	608 713	320 067	52.6	1.24	13.5
Greece	69 089	31 843	46.1	1.06	10.3
Hungary	39 242	22 322	56.9	1.01	9.4
Ireland	42 916	25 368	59.1	1.34	14.3
Italy	366 894	168 632	46.0	1.17	12.0
Latvia	3 482	1 942	55.8	0.74	6.7
Lithuania	12 329	4 676	37.9	0.75	5.8
Luxembourg	4 013	3 330	83.0	1.24	13.3
Malta	1 003	665	66.3	1.00	11.8
Netherlands	202 703	118 246	58.3	1.48	16.8
Poland	144 090	49 019	34.0	0.72	5.7
Portugal	69 026	37 997	55.0	1.12	11.2
Romania	45 236	17 192	38.0	0.81	7.5
Slovakia	19 974	11 493	57.5	0.83	7.0
Slovenia	21 836	10 979	50.3	1.04	9.4
Spain	309 076	147 698	47.8	1.16	11.8
Sweden	136 603	84 276	61.7	1.34	14.1
United Kingdom	582 678	325 807	55.9	1.36	15.1

Main foreign collaborators (2008–2014)

	First collaborator	Second collaborator	Third collaborator	Fourth collaborator	Fifth collaborator
	United States of America (85 069) China (119 594)	United Kingdom (25 879) United Kingdom (100 537)	China (19 522) Germany (94 322)	Germany (19 244) Canada (85 069)	France (18 956) France (62 636)
	United States of America (8 000) United States of America (60) United States of America (425) United States of America (24 964) United States of America (7 850) United States of America (4 386) United States of America (1 169) United States of America (1 070) United States of America (108) United States of America (388) United States of America (45) United States of America (179) United States of America (12 873) United States of America (157) United States of America (1 155) United States of America (142) United States of America (2 035)	Spain (5 246) United Kingdom (20) Brazil (193) France (8 938) Spain (4 475) Spain (3 220) Spain (365) Spain (492) Mexico (45) Mexico (116) Canada (20) Mexico (58) Spain (6 793) Sweden (86) Germany (311) Brazil (113) Brazil (719)	Brazil (4 237) Canada (9) France (192) United Kingdom (8 784) Germany (3 879) Brazil (2 555) Brazil (295) Brazil (490) Spain (38) Brazil (74) United Kingdom (13) Brazil (42) France (3 818) Mexico (52) United Kingdom (241) Argentina (88) United Kingdom (646)	Germany (3 285) Mexico (8) Spain (187) Germany (8 054) France (3 562) United Kingdom (1 943) Mexico (272) United Kingdom (475) Guatemala (34); Honduras (34) United Kingdom (63) France (12) Argentina (41) United Kingdom (3 525) Costa Rica (51) Canada (195) Spain (62) Spain (593)	France (3 093) Australia (7); France (7) United Kingdom (144) Spain (7 268) United Kingdom (3 443) France (1 854) France (260) France (468) Costa Rica (54) Netherlands (8) Colombia (40) Germany (3 345) Spain (48) Brazil (188) Uruguay (36); Peru (36) France (527)
	Netherlands (38) United States of America (854) United States of America (1 417)	United States of America (16) Brazil (740) Spain (1093)	Canada (8) Argentina (722) France (525)	Brazil (6) Spain (630) Mexico (519)	Germany (5); France (5); Ecuador (5) France (365) Brazil (506)
	United States of America (11) United States of America (97) United States of America (139) Spain (1 235)	St Vincent and the Grenadines (4); France (4) Canada (37) United Kingdom (118) Mexico (806)	United Kingdom (34) Canada (86) Brazil (771)	United Kingdom (3); St Kitts and Nevis (3); Barbados (3) Germany (8) Germany (48) United States of America (412)	Australia (6) Belgium (43); Japan (43) Germany (392)
	United States of America (29) United States of America (168) United States of America (532) United States of America (208) United States of America (282) United States of America (46)	Canada (7) United Kingdom (52) Iran, Islamic Rep. of (91) France (38) United Kingdom (116) Canada (17)	United Kingdom (6); Trinidad and Tobago (6); Hungary (6) Mexico (49) United Kingdom (77) United Kingdom (18) Canada (77) South Africa (12)	Spain (45) Poland (63) South Africa (14) Trinidad and Tobago (43) United Kingdom (10)	Brazil (38) Turkey (46) Canada (13) South Africa (28) China (8)
	South Africa (4) United States of America (6) United States of America (251)	United States of America (3) Barbados (4); Antigua and Barbuda (4) United Kingdom (183)	St Kitts and Nevis (2); Costa Rica (2); Antigua and Barbuda (2); Barbados (2); United Kingdom (2); Canada (2) Canada (95)	Trinidad and Tobago (3); St Kitts and Nevis (3) India (63)	Jamaica (43)
	Germany (21 483) United States of America (18 047) Germany (2 632) Germany (2 383) Greece (1 426) Germany (8 265) United States of America (15 933) Finland (1 488) United States of America (10 756) United States of America (62 636) United States of America (94 322) United States of America (10 374) United States of America (6 367) United Kingdom (9 735) United States of America (53 913) Germany (500) Germany (1 214) France (969) United Kingdom (318) United States of America (36 295) United States of America (13 207) Spain (10 019) France (4 424) Czech Rep. (3 732) United States of America (2 479) United States of America (39 380) United States of America (24 023) United States of America (100 537)	United States of America (13 783) France (17 743) United States of America (1 614) United States of America (2 349) United States of America (1 170) United States of America (7 908) United Kingdom (12 176) United Kingdom (1 390) United Kingdom (8 507) Germany (42 178) United Kingdom (54 779) United Kingdom (8 905) Germany (6 099) United States of America (7 426) United Kingdom (34 639) United States of America (301) United States of America (1 065) Germany (870) Italy (197) Germany (29 922) Germany (12 591) United States of America (8 107) Germany (3 876) Germany (2 719) Germany (2 315) United Kingdom (28 979) United Kingdom (17 928) Germany (54 779)	United Kingdom (8 978) United Kingdom (15 109) Italy (1 566) Italy (1 900) United Kingdom (1 065) France (5 884) Germany (11 359) Germany (1 368) Germany (8 167) United Kingdom (40 595) France (42 178) Germany (7 438) United Kingdom (4 312) Germany (4 580) Germany (33 279) Lithuania (298) United Kingdom (982) Belgium (495) France (126) United Kingdom (29 606) United Kingdom (8 872) United Kingdom (7 524) United States of America (3 533) United States of America (2 249) Italy (2 195) Germany (26 056) Germany (16 731) France (40 595)	Italy (7 678) Germany (14 718) France (1 505) United Kingdom (1 771) Germany (829) United Kingdom (5 775) Sweden (8 906) United States of America (1 336) Sweden (7 244) Italy (32 099) Switzerland (34 164) Italy (6 184) France (3 740) France (3 541) France (32 099) Russian Federation (292) France (950) United Kingdom (488) Germany (120) France (17 549) France (8 795) France (6 054) Italy (3 268) United Kingdom (1 750) United Kingdom (1 889) France (25 977) France (10 561) Italy (34 639)	France (7 425) Netherlands (14 307) United Kingdom (1 396) France (1 573) Italy (776) Italy (4 456) France (6 978) Sweden (1 065) France (5 109) Spain (25 977) Italy (33 279) France (5 861) Italy (3 588) Italy (2 751) Spain (24 571) United Kingdom (289) Poland (927) United States of America (470) United States of America (109) Italy (15 190) Italy (6 944) Germany (5 798) United Kingdom (2 530) France (1 744) France (1 666) Italy (24 571) Italy (9 371) Netherlands (29 606)

Table S10: Scientific publications in international collaboration, 2008-2014

	Total number of publications	Number of publications with international co-authors	Publications with international co-authors (%)	Average citation rate	Percentage of papers in 10% most-cited papers
	2008–2014	2008–2014	2008–2014	2008–2012	2008–2012
Southeast Europe					
Albania	782	471	60.2	0.56	4.0
Bosnia and Herzegovina	2 304	1 397	60.6	0.73	6.4
FYR Macedonia	1 795	1 198	66.7	0.80	6.7
Montenegro	995	731	73.5	0.71	5.8
Serbia	28 782	10 635	37.0	0.89	7.5
Other Europe and West Asia					
Armenia	4 472	2 688	60.1	1.03	9.2
Azerbaijan	3 013	1 598	53.0	0.73	5.6
Belarus	7 318	4 274	58.4	0.79	6.6
Georgia	3 174	2 283	71.9	1.29	10.7
Iran, Islamic Rep. of	137 557	29 366	21.3	0.81	7.4
Israel	75 268	37 142	49.3	1.19	11.9
Moldova, Rep. of	1 691	1 204	71.2	0.77	7.9
Russian Federation	194 364	64 190	33.0	0.52	3.8
Turkey	152 333	28 643	18.8	0.71	5.8
Ukraine	33 154	15 761	47.5	0.59	4.4
European Free Trade Assoc.					
Iceland	5 207	4 029	77.4	1.71	18.3
Liechtenstein	333	302	90.7	1.12	12.3
Norway	62 947	38 581	61.3	1.29	13.4
Switzerland	157 286	108 371	68.9	1.56	18.0
Sub-Saharan Africa					
Angola	225	217	96.4	0.67	6.3
Benin	1 506	1 320	87.6	0.82	6.8
Botswana	1 121	894	79.8	1.14	7.6
Burkina Faso	1 704	1 557	91.4	0.96	8.0
Burundi	107	103	96.3	0.70	10.2
Cabo Verde	85	85	100.0	1.45	18.4
Cameroon	4 030	3 257	80.8	0.71	4.9
Central African Rep.	176	166	94.3	0.84	8.7
Chad	116	110	94.8	0.72	5.1
Comoros	18	18	100.0	–	–
Congo	608	555	91.3	0.90	8.2
Congo, Dem. Rep. of	675	628	93.0	1.00	10.3
Côte d'Ivoire	1 445	1 056	73.1	0.71	7.2
Djibouti	51	45	88.2	–	–
Equatorial Guinea	27	27	100.0	–	–
Eritrea	100	92	92.0	0.71	10.6
Ethiopia	4 323	3 069	71.0	0.82	6.3
Gabon	717	679	94.7	0.98	9.0
Gambia	687	655	95.3	1.24	15.4
Ghana	3 076	2 401	78.1	1.08	8.8
Guinea	198	193	97.5	0.96	7.6
Guinea-Bissau	172	172	100.0	1.09	14.9
Kenya	7 727	6 705	86.8	1.19	11.3
Lesotho	135	123	91.1	0.72	6.7
Liberia	56	56	100.0	–	–
Madagascar	1 234	1 136	92.1	0.89	8.8
Malawi	1 855	1 672	90.1	1.38	13.1
Mali	933	891	95.5	1.17	12.0
Mauritius	488	337	69.1	0.73	5.9
Mozambique	865	834	96.4	1.86	12.6
Namibia	646	583	90.2	0.93	10.0
Niger	598	560	93.6	0.93	9.3
Nigeria	13 780	5 109	37.1	0.60	4.1
Rwanda	590	562	95.3	1.05	9.0
Sao Tome and Principe	11	11	100.0	–	–
Senegal	2 135	1 841	86.2	0.85	8.1
Seychelles	198	190	96.0	0.99	8.1
Sierra Leone	178	171	96.1	0.85	9.1
Somalia	20	20	100.0	–	–
South Africa	52 166	29 473	56.5	1.04	9.8
South Sudan	53	52	98.1	–	–
Swaziland	238	205	86.1	0.91	9.7
Tanzania	4 018	3 588	89.3	1.17	13.0
Togo	363	302	83.2	0.52	2.8
Uganda	4 193	3 686	87.9	1.33	12.9
Zambia	1 316	1 263	96.0	1.25	12.6
Zimbabwe	1 638	1 356	82.8	1.21	11.9

Main foreign collaborators (2008–2014)				
First collaborator	Second collaborator	Third collaborator	Fourth collaborator	Fifth collaborator
Italy (144)	Germany (68)	Greece (61)	France (52)	Serbia (46)
Serbia (555)	Croatia (383)	Slovenia (182)	Germany (165)	United States of America (141)
Serbia (243)	Germany (215)	United States of America (204)	Bulgaria (178)	Italy (151)
Serbia (411)	Italy (92)	Germany (91)	France (86)	Russian Federation (81)
Germany (2 240)	United States of America (2 149)	Italy (1 892)	United Kingdom (1 825)	France (1 518)
United States of America (1 346)	Germany (1 333)	France (1 247); Russian Federation (1 247)		Italy (1 191)
Turkey (866)	Russian Federation (573)	United States of America (476)	Germany (459)	United Kingdom (413)
Russian Federation (2 059)	Germany (1 419)	Poland (1 204)	United States of America (1 064)	France (985)
United States of America (1 153)	Germany (1 046)	Russian Federation (956)	United Kingdom (924)	Italy (909)
United States of America (6 377)	Canada (3 433)	United Kingdom (3 318)	Germany (2 761)	Malaysia (2 402)
United States of America (19 506)	Germany (7 219)	United Kingdom (4 895)	France (4 422)	Italy (4 082)
Germany (276)	United States of America (235)	Russian Federation (214)	Romania (197)	France (153)
Germany (17 797)	United States of America (17 189)	France (10 475)	United Kingdom (8 575)	Italy (6 888)
United States of America (10 591)	Germany (4 580)	United Kingdom (4 036)	Italy (3 314)	France (3 009)
Russian Federation (3 943)	Germany (3 882)	United States of America (3 546)	Poland (3 072)	France (2 451)
United States of America (1 514)	United Kingdom (1 095)	Sweden (1 078)	Denmark (750)	Germany (703)
Austria (121)	Germany (107)	Switzerland (100)	United States of America (68)	France (19)
United States of America (10 774)	United Kingdom (8 854)	Sweden (7 540)	Germany (7 034)	France (5 418)
Germany (34 164)	United States of America (33 638)	United Kingdom (20 732)	France (19 832)	Italy (15 618)
Portugal (73)	United States of America (34)	Brazil (32)	United Kingdom (31)	Spain (26); France (26)
France (529)	Belgium (206)	United States of America (155)	United Kingdom (133)	Netherlands (125)
United States of America (367)	South Africa (241)	United Kingdom (139)	Canada (58)	Germany (51)
France (676)	United States of America (261)	United Kingdom (254)	Belgium (198)	Germany (156)
Belgium (38)	China (22)	United States of America (18)	Kenya (16)	United Kingdom (13)
Portugal (42)	Spain (23)	United Kingdom (15)	United States of America (11)	Germany (8)
France (1 153)	United States of America (528)	Germany (429)	South Africa (340)	United Kingdom (339)
France (103)	United States of America (32)	Cameroon (30)	Gabon (29)	Senegal (23)
France (66)	Switzerland (28)	Cameroon (20)	United States of America (14); United Kingdom (14)	
France (7)	United Kingdom (4)	Morocco (3); Madagascar (3)		United States of America (2); Italy (2)
France (191)	United States of America (152)	Belgium (132)	United Kingdom (75)	Switzerland (68)
Belgium (286)	United States of America (189)	France (125)	United Kingdom (77)	Switzerland (65)
France (610)	United States of America (183)	Switzerland (162)	United Kingdom (109)	Burkina Faso (93)
France (31)	United States of America (6); United Kingdom (6)		Canada (5)	Spain (4)
United States of America (13)	Spain (11)	United Kingdom (10)	Cameroon (4); South Africa (4)	
United States of America (24)	India (20)	Italy (18)	Netherlands (13)	United Kingdom (11)
United States of America (776)	United Kingdom (538)	Germany (314)	India (306)	Belgium (280)
France (334)	Germany (231)	United States of America (142)	United Kingdom (113)	Netherlands (98)
United Kingdom (473)	United States of America (216)	Belgium (92)	Netherlands (69)	Kenya (67)
United States of America (830)	United Kingdom (636)	Germany (291)	South Africa (260)	Netherlands (256)
France (71)	United Kingdom (38)	United States of America (31)	China (27)	Senegal (26)
Denmark (112)	Sweden (50)	Gambia (40); United Kingdom (40)	–	United States of America (24)
United States of America (2 856)	United Kingdom (1 821)	South Africa (750)	Germany (665)	Netherlands (540)
South Africa (56)	United States of America (34)	United Kingdom (13)	Switzerland (10)	Australia (8)
United States of America (36)	United Kingdom (12)	France (11)	Ghana (6)	Canada (5)
France (530)	United States of America (401)	United Kingdom (180)	Germany (143)	South Africa (78)
United States of America (739)	United Kingdom (731)	South Africa (314)	Netherlands (129); Kenya (129)	
United States of America (358)	France (281)	United Kingdom (155)	Burkina Faso (120)	Senegal (97)
United Kingdom (101)	United States of America (80)	France (44)	India (43)	South Africa (40)
United States of America (239)	Spain (193)	South Africa (155)	United Kingdom (138)	Portugal (113)
South Africa (304)	United States of America (184)	Germany (177)	United Kingdom (161)	Australia (115)
France (238)	United States of America (145)	Nigeria (82)	United Kingdom (77)	Senegal (71)
United States of America (1 309)	South Africa (953)	United Kingdom (914)	Germany (434)	China (329)
United States of America (244)	Belgium (107)	Netherlands (86)	Kenya (83)	United Kingdom (82)
Portugal (5); United Kingdom (5)		United States of America (4)	Denmark (2); Angola (2)	
France (1 009)	United States of America (403)	United Kingdom (186)	Burkina Faso (154)	Belgium (139)
United Kingdom (69)	United States of America (64)	Switzerland (52)	France (41)	Australia (31)
United States of America (87)	United Kingdom (41)	Nigeria (20)	China (16); Germany (16)	
Kenya (9)	Egypt (8)	United Kingdom (6)	United States of America (5)	Switzerland (3)
United States of America (9 920)	United Kingdom (7 160)	Germany (4 089)	Australia (3 448)	France (3 445)
United States of America (33)	United Kingdom (22)	Uganda (16)	Kenya (8); Sudan (8)	
South Africa (104)	United States of America (59)	United Kingdom (45)	Tanzania (12); Switzerland (12)	
United States of America (1 212)	United Kingdom (1 129)	Kenya (398)	Switzerland (359)	South Africa (350)
France (146)	Benin (57)	United States of America (50)	Burkina Faso (47)	Côte d'Ivoire (31)
United States of America (1 709)	United Kingdom (1031)	Kenya (477)	South Africa (409)	Sweden (311)
United States of America (673)	United Kingdom (326)	South Africa (243)	Switzerland (101)	Kenya (100)
South Africa (526)	United States of America (395)	United Kingdom (371)	Netherlands (132)	Uganda (124)

Table S10: Scientific publications in international collaboration, 2008-2014

	Total number of publications	Number of publications with international co-authors	Publications with international co-authors (%)	Average citation rate	Percentage of papers in 10% most-cited papers
	2008–2014	2008–2014	2008–2014	2008–2012	2008–2012
Arab States					
Algeria	12 577	7 432	59.1	0.68	5.2
Bahrain	951	648	68.1	0.53	3.8
Egypt	44 239	22 568	51.0	0.77	6.5
Iraq	3 137	1 915	61.0	0.55	3.7
Jordan	7 226	3 747	51.9	0.80	5.9
Kuwait	4 330	2 115	48.8	0.73	6.1
Lebanon	5 409	3 583	66.2	0.85	7.9
Libya	1 017	810	79.6	0.65	4.7
Mauritania	138	133	96.4	0.87	7.5
Morocco	9 928	6 235	62.8	0.69	5.9
Oman	3 062	2 137	69.8	0.76	6.3
Palestine	414	232	56.0	0.54	3.8
Qatar	3 777	3 279	86.8	1.07	11.5
Saudi Arabia	40 534	29 271	72.2	1.09	10.8
Sudan	1 757	1 325	75.4	0.97	5.9
Syrian Arab Rep.	1 924	1 193	62.0	0.81	6.2
Tunisia	18 687	9 813	52.5	0.66	4.5
United Arab Emirates	7 323	5 272	72.0	0.85	7.7
Yemen	987	841	85.2	0.78	7.7
Central Asia					
Kazakhstan	2 442	1 496	61.3	0.51	4.5
Kyrgyzstan	471	373	79.2	0.67	6.2
Mongolia	1 189	1 134	95.4	0.73	6.2
Tajikistan	366	250	68.3	0.39	2.9
Turkmenistan	86	76	88.4	0.77	7.4
Uzbekistan	2 267	1 373	60.6	0.48	3.0
South Asia					
Afghanistan	226	218	96.5	0.74	9.7
Bangladesh	7 664	5 445	71.0	0.79	6.8
Bhutan	173	157	90.8	0.76	7.6
India	314 669	67 146	21.3	0.76	6.4
Maldives	48	47	97.9	–	–
Nepal	2 510	1 919	76.5	1.02	8.3
Pakistan	35 546	15 034	42.3	0.81	7.2
Sri Lanka	3 305	2 175	65.8	0.96	6.0
Southeast Asia					
Brunei Darussalam	435	315	72.4	0.85	6.6
Cambodia	1 052	999	95.0	1.39	14.3
China	1 137 882	277 145	24.4	0.98	10.0
China, Hong Kong SAR	53 296	34 611	64.9	1.34	14.9
China, Macao SAR	1 593	1 264	79.3	1.24	12.4
Indonesia	7 821	6 712	85.8	0.96	8.4
Japan	523 744	142 163	27.1	0.88	7.8
Korea, DPR	199	175	87.9	0.65	3.1
Korea, Rep. of	298 768	82 513	27.6	0.89	7.9
Lao PDR	715	695	97.2	1.02	10.0
Malaysia	47 163	21 895	46.4	0.83	8.4
Myanmar	366	343	93.7	0.69	6.4
Philippines	5 558	3 864	69.5	1.15	12.1
Singapore	62 498	35 697	57.1	1.47	16.4
Thailand	38 627	19 058	49.3	0.95	8.2
Timor–Leste	17	16	94.1	–	–
Viet Nam	10 572	8 089	76.5	0.86	8.1
Oceania					
Australia	269 403	138 976	51.6	1.31	14.1
New Zealand	46 394	27 305	58.9	1.22	12.0
Cook Islands	22	22	100.0	–	–
Fiji	547	453	82.8	0.93	7.9
Kiribati	9	9	100.0	–	–
Marshall Islands	20	17	85.0	–	–
Micronesia	49	38	77.6	–	–

Main foreign collaborators (2008–2014)				
First collaborator	Second collaborator	Third collaborator	Fourth collaborator	Fifth collaborator
France (4 883)	Saudi Arabia (524)	Spain (440)	United States of America (383)	Italy (347)
Saudi Arabia (137)	Egypt (101)	United Kingdom (93)	United States of America (89)	Tunisia (75)
Saudi Arabia (7 803)	United States of America (4 725)	Germany (2 762)	United Kingdom (2 162)	Japan (1 755)
Malaysia (595)	United Kingdom (281)	United States of America (279)	China (133)	Germany (128)
United States of America (1 153)	Germany (586)	Saudi Arabia (490)	United Kingdom (450)	Canada (259)
United States of America (566)	Egypt (332)	United Kingdom (271)	Canada (198)	Saudi Arabia (185)
United States of America (1 307)	France (1 277)	Italy (412)	United Kingdom (337)	Canada (336)
United Kingdom (184)	Egypt (166)	India (99)	Malaysia (79)	France (78)
France (62)	Senegal (40)	United States of America (18)	Spain (16)	Tunisia (15)
France (3 465)	Spain (1 338)	United States of America (833)	Italy (777)	Germany (752)
United States of America (333)	United Kingdom (326)	India (309)	Germany (212)	Malaysia (200)
Egypt (50)	Germany (48)	United States of America (35)	Malaysia (26)	United Kingdom (23)
United States of America (1 168)	United Kingdom (586)	China (457)	France (397)	Germany (373)
Egypt (7 803)	United States of America (5 794)	United Kingdom (2 568)	China (2 469)	India (2 455)
Saudi Arabia (213)	Germany (193)	United Kingdom (191)	United States of America (185)	Malaysia (146)
France (193)	United Kingdom (179)	Germany (175)	United States of America (170)	Italy (92)
France (5 951)	Spain (833)	Italy (727)	Saudi Arabia (600)	United States of America (544)
United States of America (1505)	United Kingdom (697)	Canada (641)	Germany (389)	Egypt (370)
Malaysia (255)	Egypt (183)	Saudi Arabia (158)	United States of America (106)	Germany (72)
Russian Federation (565)	United States of America (329)	Germany (240)	United Kingdom (182)	Japan (150)
Russian Federation (99)	Turkey (74); Germany (74)		United States of America (56)	Kazakhstan (43)
Japan (301)	United States of America (247)	Russian Federation (242)	Germany (165)	Korea, Rep. of (142)
Pakistan (68)	Russian Federation (58)	United States of America (46)	Germany (26)	United Kingdom (20)
Turkey (50)	Russian Federation (11)	United States of America (6); Italy (6)		Germany (4); China (4)
Russian Federation (326)	Germany (258)	United States of America (198)	Italy (131)	Spain (101)
United States of America (97)	United Kingdom (52)	Pakistan (29)	Japan (26); Egypt (26)	
United States of America (1 394)	Japan (1 218)	United Kingdom (676)	Malaysia (626)	Korea, Rep. of (468)
United States of America (44)	Australia (40)	Thailand (37)	Japan (26)	India (18)
United States of America (21 684)	Germany (8 540)	United Kingdom (7 847)	Korea, Rep. of (6 477)	France (5 859)
India (14)	Italy (11)	United States of America (8)	Australia (6)	United Kingdom (5); Sweden (5); Japan (5)
United States of America (486)	India (411)	United Kingdom (272)	Japan (256)	Korea, Rep. of (181)
United States of America (3 074)	China (2 463)	United Kingdom (2 460)	Saudi Arabia (1 887)	Germany (1 684)
United Kingdom (548)	United States of America (516)	Australia (458)	India (332)	Japan (285)
Malaysia (68)	United Kingdom (47)	United States of America (46)	Australia (44)	Singapore (42)
United States of America (307)	Thailand (233)	France (230)	United Kingdom (188)	Japan (136)
United States of America (119 594)	Japan (26 053)	United Kingdom (25 151)	China, Hong Kong SAR (22 561)	Australia (21 058)
China (22 561)	United States of America (7 396)	Australia (2 768)	United Kingdom (2 675)	Canada (1 679)
China (809)	China, Hong Kong SAR (412)	United States of America (195)	United Kingdom (51)	Portugal (40)
Japan (1 848)	United States of America (1 147)	Australia (1 098)	Malaysia (950)	Netherlands (801)
United States of America (50 506)	China (26 053)	Germany (15 943)	United Kingdom (14 796)	Korea, Rep. of (12 108)
China (85)	Korea, Rep. of (41)	Germany (32)	United States of America (12)	Australia (9)
United States of America (42 004)	Japan (12 108)	China (11 993)	India (6 477)	Germany (6 341)
Thailand (191)	United Kingdom (161)	United States of America (136)	France (125)	Australia (117)
United Kingdom (3 076)	India (2 611)	Australia (2 425)	Iran, Islamic Rep. of (2 402)	United States of America (2 308)
Japan (102)	Thailand (91)	United States of America (75)	Australia (46)	United Kingdom (43)
United States of America (1 298)	Japan (909)	Australia (538)	China (500)	United Kingdom (410)
China (11 179)	United States of America (10 680)	Australia (4 166)	United Kingdom (4 055)	Japan (2 098)
United States of America (6 329)	Japan (4 108)	United Kingdom (2 749)	Australia (2 072)	China (1 668)
Australia (8)	Japan (3); Portugal (3); Czech Rep. (3)			China (2); United States of America (2)
United States of America (1 401)	Japan (1 384)	Korea, Rep. of (1 289)	France (1 126)	United Kingdom (906)
United States of America (43 225)	United Kingdom (29 324)	China (21 058)	Germany (15 493)	Canada (12 964)
United States of America (8 853)	Australia (7 861)	United Kingdom (6 385)	Germany (3 021)	Canada (2 500)
United States of America (17)	Australia (11); New Zealand (11)		France (4)	Brazil (3); Japan (3)
Australia (229)	United States of America (110)	New Zealand (94)	United Kingdom (81)	India (66)
Australia (7)	New Zealand (6)	United States of America (5); Fiji (5)		Papua New Guinea (4)
United States of America (11)	Micronesia (6)	Fiji (5); Australia (5)		New Zealand (3); Palau (3); Papua New Guinea (3)
United States of America (26)	Australia (9)	Fiji (8)	Marshall Islands (6)	New Zealand (5); Palau (5)

Table S10: Scientific publications in international collaboration, 2008-2014

	Total number of publications	Number of publications with international co-authors	Publications with international co-authors (%)	Average citation rate	Percentage of papers in 10% most-cited papers
	2008–2014	2008–2014	2008–2014	2008–2012	2008–2012
Nauru	2	2	100.0	–	–
Niue	3	3	100.0	–	–
Palau	46	40	87.0	–	–
Papua New Guinea	646	583	90.2	0.88	9.0
Samoa	9	8	88.9	–	–
Solomon Islands	74	73	98.6	1.00	13.6
Tonga	24	24	100.0	–	–
Tuvalu	5	5	100.0	–	–
Vanuatu	114	108	94.7	0.81	3.3

Source: data from Thomson Reuters' Web of Science, Science Citation Index Expanded, compiled for UNESCO by Science–Metrix, May 2015

KEY TO ALL TABLES:

- : data unavailable
- n/+n: data refer to n years before or after reference year
- 0: magnitude nil or negligible
- a: not applicable
- b: overestimated or based on overestimated data
- c: including other classes
- d: including business enterprise
- e: including higher education
- f: including private non–profit
- g: included elsewhere
- h: excluding business enterprise
- i: excluding government
- j: excluding higher education
- k: government only
- l: higher education only
- m: included in business
- n: included in government
- o: excluding most or all capital expenditures
- p: excluding defence (all or mostly)
- q: underestimated or partial data
- r: estimation
- s: break in series with previous year for which data are shown
- t: the sum of the breakdown does not add to the total
- u: based on R&D budget
- v: provisional data

METHODOLOGICAL NOTE

Bibliographic data

Publication data have been compiled for UNESCO by Science–Metrix from Thomson Reuters' Web of Science, Science Citation Index Expanded, as of May 2015.

Economic data

Data on economic indicators, such as gross domestic product (GDP) and purchasing power parity (PPP), are based on the World Bank's economic data release of April 2015: <http://data.worldbank.org/products/wdi>. (See the note on the cut–off date.)

It should be noted that, since 2014, the UNESCO Institute for Statistics has used data on total general government expenditure (all sectors) from the International Monetary Fund's *World Economic Outlook* database as the denominator for its indicator entitled Expenditure on education as a percentage of total government expenditure. For more information about the change in methodology, please visit: www.uis.unesco.org/education