SUPLEMMENTARY MATERIAL

Supplementary Text 1. Survey instrument.

Q1: Indicate your age rank

- o   <25 years old
- o   25 – 29 years old
- o   30 – 34 years old
- o   25 – 39 years old
- o   > 40 years old

Q2: Indicate your gender

- o   Male
- o   Female

Q3: Indicate your country from the list (list)

Q4: What is your current position? (multiple answers possible)

- o   Physician in training
- o   Attending physician
- o   Research fellow
- o   PhD student
- o   Post-doc
- o   Group leader
- o   Other (specify):

Q5: In case you are a post-doc, please indicate your career stage

- o   Junior post-doc (1-3 years since PhD completion)
- o   Senior post-doc (>3 years since PhD completion)

Q6: Which of the following would you consider to be your primary career path or role?

- o   Clinician educator or clinician teacher
- o   Physician scientist/researcher
- o   Clinician in an academic health center
- o   Clinician in private practice

o Administrator
o Industry
o Government agency
o Not sure

Q7: If you are interested in a career in research, please select the types of research you are involved in

o Basic immunology research
o Basic science research, another topic
o Translational work with human samples
o Clinical trials
o Epidemiology/Outcomes
o Genetics
o Bioinformatics
o Health services (including quality)
o Educational/Research/Scholarship
o Not applicable

Q8: Do you have a particular disease focus? (multiple answers possible)

o Rheumatoid arthritis
o SLE and/or Sjögren syndrome
o Systemic vasculitis
o Scleroderma
o Myositis
o OA and/or crystal arthropathies
o Spondyloarthritis
o Pain, including fibromyalgia
o Drug development or pharmacology
o Not sure yet
o Not applicable

Q9: Would an initiative to help post-docs to develop themselves further in their career be useful?

o Yes
o No
o Other (specify)

Q10: Which of the following potential components of the program do you consider helpful? Please rank the following aspects from 1 (less relevant) to 5 (most relevant)

- o Discussing problems of current projects with a senior mentor
- o Discussing potential new projects with a senior mentor
- o Consulting on how to lead projects and efficiently work with staff members
- o Building a network that is useful for the career of a post-doc researcher
- o Discussing and getting guidance on how to start an own research line and evolve from a junior to a senior researcher

Q11: In your opinion, which of the following should apply for a good mentor? (multiple answers possible)

- o Vast research experience
- o Successful in capturing funding from grants
- o Generous and genuinely interested in helping you grow
- o Balanced dedication: research/clinical/teaching/management
- o Experience outside academia (i.e.: pharma/biotech industry, private companies…)
- o International collaborations
- o Editorial experience
- o Leadership positions (chair of meetings, committees, etc…)
- o Other (specify):

Q12: Please indicate ways in which you would utilize a remote mentor (multiple answers possible)

- o Insight into career path
- o Goal setting
- o Complimentary mentoring to that of my institution
- o Discussion of work-life balance
- o Assistance in developing a career development plan
- o Development of research ideas and projects
- o Grant and manuscript development and review
- o Access to resources and projects outside my institution
- o Advise on structuring my research team
- o Visit mentor in lab/practice to understand career path
- o Advise on political situations within my institution
- o Assistance with networking
- o Advise on negotiating a job contract
- o Advise on how to search for a job
- o Potential for a job at the mentors's institution
- o Setting up a solo practice
- o Developing a business plan
- o Advise on hiring staff
- o Time management suggestions
- o Knowing how and when to say 'no'
- o Tips on teaching and curriculum building

o   Advise on switching career paths

Q13: What would be good ways to communicate with the mentor? (multiple answers possible)

o   Regular face-to-face meetings
o   Meeting during EULAR/ACR congress 1-2 times a year
o   E-mail
o   SMS/messengers e.g. WhatsApp
o   Video conference e.g.Skype
o   Teleconference/telephone call
o   Other (specify)

Q14: What would be the ideal frequency of communication with the mentor? (multiple answers possible)

o   Once a week
o   Once a month
o   Every 3 months
o   Every 6 months
o   Other (specify)

Q15: What do you think would be an adequate duration of such an initiative?

o   6 months
o   12 months
o   24 months
o   Other (specify)

Q16: In your opinion, what are potential barriers to the success of this initiative? (multiple answers possible)

o   Conflict of interest with head of department
o   Keeping contact with the mentor
o   Interference with the previous PhD mentor
o   Lack of time of the mentor
o   Lack of benefits for the mentor
o   Conflict of interest by working in the same research area, but different research units
o   Contact only via mail, telephone or TC (lack of face-to-face contact)
o   I cannot anticipate problems

Supplementary Table 1: Background profiles registered in the survey.

	Total respondents, N (%)	Post-docs, N (%)	PhD students, N (%)	p-value
Total respondents (N)†	158	103	55	
(A) Research areas				
Immunology	49 (31)	35 (34)	14 (26)	0.27
Basic science other than immunology	28 (18)	17 (17)	11 (20)	0.58
Translational studies	57 (36)	40 (39)	17 (31)	0.32
Clinical trials	76 (48)	46 (45)	30 (55)	0.24
Epidemiology/outcomes	70 (44)	41 (40)	29 (52)	0.12
Genetics	13 (8)	12 (12)	1 (2)	0.03
Bioinformatics	16 (10)	10 (10)	6 (11)	0.81
Health service research	27 (17)	21 (20)	6 (11)	0.13
Educational	24 (15)	16 (16)	8 (15)	0.87
Other	3 (2)	3 (3)	0 (0)	0.20
(B) Disease topics				
Rheumatoid arthritis	90 (57)	65 (63)	25 (46)	0.03
SLE and Sjogren syndrome	46 (29)	34 (33)	12 (22)	0.14
Systemic vasculitis	12 (8)	7 (7)	5 (9)	0.60
Scleroderma	24 (15)	14 (14)	10 (18)	0.44
Myositis	7 (4)	4 (4)	3 (6)	0.65
Osteoarthritis	31 (20)	20 (20)	11 (20)	0.93
Spondyloarthritis	43 (27)	31 (30)	12 (22)	0.27
Fibromyalgia/pain	15 (10)	8 (8)	7 (13)	0.31
Drug development and pharmacology	9 (6)	6 (6)	3 (6)	0.92
Not sure	5 (3)	2 (2)	3 (6)	0.23
Not applicable	2 (1)	2 (2)	0 (0)	0.30

Respondents were asked to indicate their research areas (A) and disease topics (B). Multiple responses were allowed. N(%) for each item was calculated. Differences between post-docs and PhD students were assessed by chi-square tests. There were no differences between post-docs and PhD students in the total number of research areas or disease topics selected.

† As these categories are not mutually exclusion, columns do not equate total number of respondents

Supplementary Table 2: Analysis of the association between gender and top priorities in the mentoring initiative.

	Post-docs (N=84)	PhD students (N=42)
Women vs men (reference)		
Discussing problems with current projects	0.44 (0.17, 1.16)	2.58 (0.46, 14.35)
Discussing new projects	1.86 (0.36, 9.59)	0.71 (0.16, 3.18)
Discussing how to lead projects	1.22 (0.41, 3.62)	0.17 (0.04, 0.79)
Discussing how to build research network	0.66 (0.19, 2.29)	1.67 (0.28, 9.82)
Discussing how to find own research line	2.52 (0.65, 9.70)	No PhD students put this as top priority

Respondents were asked to rank the options according to their preferences. OR (95% CI) for choosing each priority as the top priority was calculated, male gender selected as the reference. These figures were calculated from the 126 respondents who answered this question.

Supplementary Table 3: Analysis of the priorities of a mentoring program among European countries. Data are expressed as the number

Priority	Whole population, (N=118)			Western countries, (N=92)			Eastern countries, (N=26)		
	Ranked 1st, N(%)	Ranked 2nd, N(%)	Ranked 3rd, N(%)	Ranked 1st, N(%)	Ranked 2nd, N(%)	Ranked 3rd, N(%)	Ranked 1st, N(%)	Ranked 2nd, N(%)	Ranked 3rd, N(%)
Discussing problems with current projects	34 (28.8)	29 (23.0)	17 (13.5)	29 (31.5)	22 (23.9)	13 (14.1)	5 (19.2)	7 (26.9)	2 (7.7)
Discussing new projects	17 (14.4)	32 (25.4)	25 (19.8)	13 (14.1)	26 (28.3)	18 (19.6)	4 (15.4)	5 (19.2)	5 (19.2)
Discussing how to lead projects	28 (23.7)	18 (14.3)	36 (28.6)	24 (26.1)	8 (8.7)	28 (30.4)	4 (15.4)	9 (34.6)	7 (26.9)
Discussing how to build research network	17 (14.4)	26 (20.6)	25 (19.8)	10 (10.9)	20 (21.7)	20 (21.7)	7 (26.9)	2 (7.7)	5 (19.2)
Discussing how to find own research line	20 (17.0)	18 (14.3)	21 (16.7)	14 (15.2)	15 (16.3)	12 (13.0)	6 (23.1)	2 (7.7)	7 (26.9)

of respondents who ranked each priority (Q10) as the 1st, 2nd or 3rd option.

Western countries: Austria, Belgium, Denmark, UK, France, Germany, Italy, Ireland, Netherlands, Norway, Portugal, Spain, Sweden, Iceland, and Switzerland

Eastern countries: Armenia, Albania, Bulgaria, Croatia, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovenia, Lithuania, Serbia

Supplementary Table 4: Analysis of the desired skills of a mentor among European countries.

	Total respondents N (%)	Western countries, N (%)	Eastern countries, N (%)
N (total)	119	93	26
Generosity and interest in helping	102 (85.7)	79 (85.0)	23 (88.5)
Vast research experience	81 (68.1)	64 (68.8)	17 (65.4)
International network	80 (67.2)	60 (64.5)	20 (76.9)
Successful grants	74 (62.2)	55 (59.1)	19 (73.1)
Balanced dedication between research, clinical work, training, management	57 (47.9)	41 (44.1)	16 (61.5)
Leadership position	37 (31.1)	34 (36.6)	3 (11.5)
Editorial experience	26 (21.9)	20 (21.5)	6 (23.1)
Experience outside academia	23 (19.3)	18 (19.4)	5 (19.2)

Western countries: Austria, Belgium, Denmark, UK, France, Germany, Italy, Ireland, Netherlands, Norway, Portugal, Spain, Sweden, Iceland, and Switzerland

Eastern countries: Armenia, Albania, Bulgaria, Croatia, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovenia, Lithuania, Serbia

Supplementary Table 5:

Potential barriers for mentoring	Whole population, N who agreed(%)	Western countries, N (%)	Eastern countries, N (%)
Lack of mentor time	103 (72.0)	82 (75.2)	21 (61.8)
Lack of benefits for mentor	70 (49.0)	58 (53.2)	12 (35.3)
Keeping up contact	68 (47.6)	56 (51.4)	12 (35.3)
Conflict with head of department	41 (28.7)	34 (31.2)	7 (20.6)
Conflicts of interest from being in same research area	36 (25.2)	29 (26.6)	7 (20.6)
No face-to-face contact	34 (23.8)	24 (22.0)	10 (29.4)
Interference from PhD supervisor	20 (14.0)	14 (12.8)	6 (17.7)
No barriers	3 (2.1)	2 (1.8)	1 (2.9)

Western countries: Austria, Belgium, Denmark, UK, France, Germany, Italy, Ireland, Netherlands, Norway, Portugal, Spain, Sweden, Iceland, and Switzerland

Eastern countries: Armenia, Albania, Bulgaria, Croatia, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovenia, Lithuania, Serbia

Supplementary Table 6: Feedback about the program received from the mentees during the final qualitative surveys. Mentees were asked to respond in an open field and responses are reproduced exactly.

Open question: how this program has helped to you?
• *"I was looking for a broader view on career chances, changes and how to decide on opportunities and I got that."*   • *"The opportunity to access the mentor, the initial meeting and further communication have made me to somewhat reconsider my priorities and career goals, involved me in several new projects and boosted my personal and career development."*   • *"You never know what made the difference in the end. But in the time being enrolled in this program I got tenured. I believe my mentor was able to convince me to really spend the extra time to write grants and make applications by delivering more objective advice compared to my collaborators and previous supervisors."*   • *"It helped me make myself clear."*