

# Survey on Status Quo and Development Needs of Research and Innovation Capabilities of Young Talents in University-affiliated Hospitals

Hi! We are conducting a survey on the status quo and development demand of innovation capacities among young researchers in university-affiliated hospitals (UAHs), in an attempt to further optimize the training mechanisms for young talents and promote the career development of young researchers in these institutions. The survey is anonymous, and all the data will be used only for research purposes. All the information provided will be kept confidential. Thank you for your participation!

**Note: You must meet the following two requirements: a) younger than 41 years old; and b) having been engaged in scientific research, technical development, scientific research service, science popularization, and other scientific research activities.**

## 1. Demographic data

This section contains single-choice questions. Please choose one answer according to the actual situation.

1. Your gender [single choice] \*

A. Male

B. Female

2. Your age: [single choice] \*

A. 25 years old or younger

B. 26 - 30 years old

C. 31 - 35 years old

D. 36 - 40 years (including 40 years old)

3. Your highest education level: [single choice] \*

A. Undergraduate and below

B. Master degree

C. Doctor degree

4. How long have you been engaged in scientific research-related work (specifically after formal employment): [single choice] \*

A. 0 - 5 years

B. 6 - 10 years

C. 11 - 15 years

D. Over 16 years

5. What's your professional title? [single choice] \*

A. Senior (e.g. professor)

B. Associate senior (e.g. associate professor)

C. Mid-level (e.g. lecturer)

D. Junior (e.g. assistant)

6. What's your research interest(s) (please specify): [fill in the blank] \*

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7. Are you a part-time or full-time researcher: [single choice] \*

- A. Part-time       B. Full-time

## 2. Assessment of innovation capabilities of young researchers in UAHs

2.1 This section is a self-assessment of innovation capabilities. Please mark correctly according to the actual situation.

8. Self-assessment of innovation capabilities [matrix questions]\*

	Very good	Average	Poor
1. Your sensitivity to discover problems during clinical practice and scientific research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Your courage to explore a new field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Your willingness to overcome difficulties or challenges during innovations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Your sensitivity to cutting-edge knowledge and new industrial development information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Your capabilities to master innovation theories, tools, and methodologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Your capability to conduct academic exchanges and learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Your ability to analyze, judge, and summarize problems independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Your ability to apply new theories and new technologies to solve real-world issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Your teamwork, organization/coordination capabilities, and industry-university-research collaboration ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Your ability to complete a research project independently:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Why did you choose the current main research interest(s): [multiple-choice questions] \*

- A. Continued the research direction during the doctoral study period
- B. Obeyed the arrangement of the current scientific research team
- C. Followed my own interest
- D. Met the major or urgent demands of the society and industry
- E. Focused on the latest research hotspots

10. How about your research team: [multiple-choice questions] \*

A. I have my own research team.

B. I have joined a research team.

C. I work alone.

11. How do you deal with the general administrative affairs such as forms filling, reimbursement, and meeting affairs: [multiple-choice questions] \*

A. I complete general administrative affairs by myself.

B. I complete general administrative affairs with my team.

C. They are completed by the students.

D. A committed office in my affiliation completes them.

E. They are completed by a professional research secretary/assistant.

**2.2 This section is an objective assessment of innovation capabilities. Please mark correctly according to the actual situation.**

12. What were your achievements in scientific research and innovations in the past three years? [matrix single-choice questions] \*

	10 or more	7 - 9	4 - 6	1 - 3	0
① Scientific articles published in core journals:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

② Formally published monographs or other academic books [single-choice question] \*

(Options include 4 and above, 3, 2, 1, and 0)

4                       3                       2                       1                       0

③ Patents granted: [single-choice question] \*

(Options include 4 and above, 3, 2, 1, and 0)

4                       3                       2                       1                       0

④ Being PIs of research projects at or above the provincial level: [single-choice question] \*

(Options include 8 and above, 5 - 7, 2 - 4, 1, and 0)

8 and above               5 - 7                       2 - 4                       1                       0

⑤ Other achievements (software, technology, etc): [single-choice question] \*

(Options include 4 and above, 3, 2, 1, and 0)

- 4 and above     3     2     1     0

13. What's the highest level of technology awards you have ever received? [single-choice question] \*

- A. National level     B. Provincial or ministerial level     C. Municipal level     D. By your affiliation or other institution     E. None

### **3. Your knowledge about the support (and its problems) for capacity-building of young researchers in your affiliation**

#### **3.1 Support for capacity-building of young researchers in your affiliation**

##### **1) Attitude towards capacity-building of young researchers in your affiliation**

14. How well do you know about the policies of your affiliation to encourage young researchers to carry out innovative activities? [single-choice question] \*

- A. Very well     B. Average     C. Very little

##### **2) The innovative atmosphere in your affiliation**

15. What's the innovative atmosphere in your affiliation? [single-choice question] \*

- A. Very good     B. Average     C. Poor

##### **3) Platforms for capacity-building of young researchers in your affiliation**

16. What are the external supports provided by your affiliation to promote the innovative behaviors of young researchers? [multiple-choice questions] \*

- A. Incentive policies and support systems
- B. Financial support
- C. Research and academic teams
- D. Research platforms and facilities
- E. Guidance on grant application
- F. Good living conditions
- G. Boost of achievement transformation
- H. Others

#### 4) Mechanisms of capacity-building of young researchers in your affiliation

17. Policies for supporting capacity-building of young researchers in your affiliation: [single-choice question] \*

- A. Yes, I am quite interested       B. Yes, but I am not interested       C. None       D. I don't know

#### 5) Measures of capacity-building of young researchers in your affiliation

18. Does your affiliation often organize the training on cutting-edge knowledge or new technology every year? [single-choice question] \*

- A. Often       B. Average       C. Seldom

19. What are the specific ways your affiliation take to cultivate the innovative ability of young researchers: [multiple-choice questions] \*

- A. Cutting-edge seminars and symposiums  
 B. New skills training  
 C. Technical mentorship programs  
 D. Expert lecture series  
 E. Academic communication with other institutions  
 F. Overseas exchange opportunities  
 G. Continuing education programs  
 H. Establishment of academic exchange platforms  
 I. Rewards for innovative practice/behaviors  
 J. Others

20. In your opinion, what are the most influential measures you affiliation has taken in cultivating your innovation capabilities? [multiple-choice questions] \*

- A. Payments  
 B. Training/learning activities  
 C. Career promotion opportunities  
 D. Technical guidance from teams  
 E. Honors and rewards  
 F. Funding of innovation activities  
 G. Guidance on grant application  
 H. Others

## (2) Factors restricting the improvement of innovation ability of young researchers

21. What are the main internal factors restricting the improvement of your innovation ability?  
[multiple-choice questions] \*

- A. Poor ability to acquire innovative knowledge
- B. Poor ability to apply knowledge
- C. Poor ability to work under pressure
- D. Poor ability to develop new fields
- E. Poor ability to grasp innovation opportunities
- F. Poor ability to complete a research project independently
- G. Unclear work goals
- H. Lack of enthusiasm for career
- I. Heavy family burden
- J. Lack of discretionary time
- K. Others

22. What are the main external factors restricting the improvement of your innovation ability?  
[multiple-choice questions] \*

- A. Lack of a cultural atmosphere for scientific and technological innovations
- B. Lack of incentive policies for innovations
- C. Lack of support from research platforms
- D. Weak organization/management levels
- E. Unreasonable evaluation indicators of professional titles
- F. Unreasonable evaluation indicators of researchers
- G. Unreasonable postgraduate tutor selection policy
- H. Insufficient funding in scientific research
- I. Low efficiency of innovation achievement transformation
- J. Lack of training on scientific research
- K. Lack of talent training program and support system
- L. Lack of support on living conditions
- M. Lack of leadership from senior peers
- N. Others

23. Which of the following system has a greater impact on your innovation ability: [multiple-choice questions] \*

- A. Talent management system
- B. Dedicated policies for young talent training
- C. Reviewing system for scientific research projects
- D. Rewarding policies for scientific and technological innovations
- E. Evaluation and assessment systems
- F. Professional title-based promotion policy
- G. Postgraduate tutor selection policy
- H. Research fund use policy
- I. Others

24. What are the problems of the government in cultivating the innovative ability of young researchers? [multiple-choice questions] \*

- A. Insufficiency in creating an innovation-friendly environment
- B. Inadequate policy support
- C. Insufficient support for special projects
- D. Weak risk management and control
- E. Highly restrictive and less inclusive in capacity-building
- F. Low support for achievement transformation
- G. Others

25. What are the problems of your affiliation in cultivating the innovative ability of young researchers? [multiple-choice questions] \*

- A. Paying more attention to research achievements rather than capacity-building
- B. Lack of a cultural atmosphere for scientific and technological innovations
- C. Poor effectiveness of training and learning activities
- D. Narrow promotion path for young researchers
- E. Lack of academic exchange platforms
- F. Lack of continuing education opportunities
- G. Lack of support from research platforms
- H. Difficulty in transforming innovation achievements
- I. Lack of leadership from senior peers
- J. Others

#### 4. Recommendations on capacity-building of young researchers

26. Which measures do you think the government should take to improve the cultivation of innovative ability of young researchers? [multiple-choice questions] \*

- A. Creating an open innovation-friendly environment
- B. Strengthening top-level policy-making
- C. Improving the design of training programs
- D. Increasing the awareness of training policies
- E. Making full use of the resources of all stakeholders
- F. Increasing funding for youth projects
- G. Strengthening the services offered by scientific and technological talent departments
- H. Others

27. Which measures do you think your affiliation should take to improve the cultivation of innovative ability of young researchers? [multiple-choice questions] \*

- A. Creating an open innovation-friendly environment
- B. Strengthening external supports
- C. Developing capacity-building mechanisms
- D. Increasing financial investment
- E. Optimizing talent assessment mechanisms
- F. Increasing organization/management levels
- G. Offering more training programs
- H. Providing platforms to exert innovative capabilities
- I. Developing multiple incentive mechanisms
- J. Others

28. Are you satisfied with the cultivation of the innovative ability of young researchers in your affiliation? [single-choice question] \*

- A. Satisfied       B. Average       C. Dissatisfied

29. Do you have more suggestions on the cultivation of the innovative ability of young researchers? [Please specify]

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