

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

2016

2016

1985

,

2016

32.9

6

"

"

2017

,

"

"

"

"

2017

2017

2017

2017

8 5 2017

985 211

"

"

2017

80

5

2017

830 ,

15

1.

2.

3.

4.

5.

"

" "

"

"

"

6.

7.

1.

4

2

3.

4.

5.

6.

				1/10
10	1			
		1/10,	10	1
		1/10,	10	1

"

"

7.

" 863"

" 973"

8.

9.

10. " " " "

" " " "

11. " " " "

"

12.

1.

2.

3.

4. 15



5.

6.

2017

"

"

1.

2.

3

2017

3.

34

4.

5.

6.

2

7.

8.

"

1

"

2

1. "

"

"

"

"

"

2. "

"

"

"

3.

"

"

"

"

2

2

1. "

"

"

1

"

"

"

2.

2

3.

"

"

2

2

2

2

1.

2.

3.

3

()

1.

"

"

"

"

1

"

"

2.

"

"

3.

1

"

" 2

4.

"

"

"

"

5.

"

"

3

1

"

"

3

6.

"

"

"

"

1 "

" 1

3

7.

8.

1.

"

"

"

"

1

"

"

2.

2

2

3.

"

"

3

1

3

4.

"

"

5.

"

"

"

"

6.

"

"

1

1

3

7.

8.

1.

2.

1

3.

4.

()

chubanzi zhu@126.com

+

1.

PDF

2

"

"

2

2

3.

"

"

"

"

4.

"

"

1

1.

1

2

7

3

1

2

4

5

2.

1

2

5

3

4

5

1.

2.

3.

E-mail

/

/ /

30%

" " Proj ect funded by Chi na
Postdoctoral Sci ence Foundati on

"

" " 2017 12
31

"

"

"

" " " 2018 1 31
1 "

" 2018 1

31 ()

"

" 2018 1

31

"

"

100083

010- 82387704 62335023

010- 62335395

<http://jj.chinapostdoctor.org.cn>

E-mail postdoctorfund@mohrss.gov.cn



“ ”

	2016			
	2016		56059	
		36264	15285	
		500	"	"
4000	2016			
			21972	
		7133	6114	"
		" 80		1019
		30		

"

"

2016

"

"

2016

"

"

"

"

2017



