## Niigata University Graduate School of Medical and Dental Sciences Master Course for Biomedical Sciences Admission for April 2025 (general entrance examination)

## Notes

◆ Please do not leave anything on the desk other than the admission ticket, writing implements, and dictionaries that are allowed to be brought in. Electronic dictionary and medical dictionary are not allowed to be used. Please turn off the power of the cellular phone and put away in your bag. Do not wear it on your body.

受験票,筆記用具,持込が許可されている辞書以外のものを机の上に置かないでください。なお,電子辞書及び医学辞書の使用は認めません。また,携帯電話等を持っている人は,電源を切ってからカバン等に入れ,身につけないでください。

◆ Please do not open the examination paper until the start of the examination is announced.

試験問題・解答用紙は、試験開始の合図があるまで開かないでください。

◆ The start of the examination is 10:00.

The end of the examination is 11:30.

試験開始時刻は、10時です。試験終了時刻は、11時30分です。

- ◆ There are 8 examination sheets. You can't remove staples used for stapling. 問題・解答用紙は、1~8ページの8枚です。なお、ホチキス止めは外さないでください。
- ◆ If you find any lack of question and answer sheets or printing failure, please offer after the test starts.

問題・解答用紙の不足、印刷不鮮明の箇所がありましたら、試験開始後に申し出てください。

◆ After the test starts, make sure to fill your examinee's number and name on all pages. Question and answer sheets will be collected after the examination.

問題・解答用紙は試験終了後にすべて回収しますので、試験開始後に問題・解答用紙のすべてのページに受験番号・氏名を必ず記入してください。

Niigata University Graduate School of Medical and Dental Sciences Master Course for Biomedical Sciences Admission for April 2025 (general entrance examination)

受験番号 (No.)	氏名(Name)
1. Read the following review answer the questions in Eng	of senescence of neurons in the brain and lish.
[1 <sup>st</sup> paragraph]	
These sentences are not public	cly available due to copyright considerations.
[2 <sup>nd</sup> paragraph]	
[3 <sup>rd</sup> paragraph]	

Niigata University Graduate School of Medical and Dental Sciences
Master Course for Biomedical Sciences
Admission for April 2025 (general entrance examination)

受験番号(No.)	氏名(Name)
These sentences are not public	cly available due to copyright considerations
[4 <sup>th</sup> paragraph]	
[5 <sup>th</sup> paragraph]	
[6 <sup>th</sup> paragraph]	
[△ hara2rahu]	

Niigata University Graduate School of Medical and Dental Sciences Master Course for Biomedical Sciences Admission for April 2025 (general entrance examination)

受験番号 (No.)

These sentences are not publicly available due to copyright considerations.
[7 <sup>th</sup> paragraph]

氏名 (Name)

(Modified from Science 384(6703) 1404-1406, 2024)

受験番号(No.)	氏名 (Name)
1) Briefly explain what "senescenc	e" is by reading the 1 <sup>st</sup> paragraph.
2) List three factors that induce sens	escence in neurons, by reading the 2 <sup>nd</sup> paragraph and
3) List three representative marker 4 <sup>th</sup> paragraph.	s for identifying senescent neurons, by reading the

Niigata University Graduate Sc Master Course for Biomedical Admission for April 2025 (gene	
受験番号 (No.)	氏名(Name)

	受験番号 (№.) 氏名 (Name)
	2. Read the following interview with Dr. Yamanaka, who studies iPS cells, and answer the questions in English.
	[1st paragraph]
These	e sentences are not publicly available due to copyright considerations.
	[2 <sup>nd</sup> paragraph]
	[3 <sup>rd</sup> paragraph]

Niigata University Graduate School of Medical and Dental Sciences
Master Course for Biomedical Sciences
Admission for April 2025 (general entrance examination)

受験番号(No.)		氏名(Name)		
These sentences	are not publicly	available due	to copyright consider	ations.
[4 <sup>th</sup> paragraph]				
[5 <sup>th</sup> paragraph]				
[6 <sup>th</sup> paragraph]				

Niigata University Graduate School of Medical and Dental Sciences
Master Course for Biomedical Sciences
Admission for April 2025 (general entrance examination)

	受験番号 (No.) 氏名 (Name)
These	sentences are not publicly available due to copyright considerations.
	(Modified from Cell 187, 3229-3230, 2024)
	$1$ ) Briefly explain what surprised Dr. Yamanaka during his research on iPS cells, by reading the $2^{nd}$ paragraph.
	2) Briefly describe <u>three</u> examples of research fields in which iPS cells are applied, by reading the 3 <sup>rd</sup> paragraph.

Niigata University Graduate School of Medical and Dental Sciences Master Course for Biomedical Sciences Admission for April 2025 (general entrance examination)

ime)
ıme

3 ) Briefly explain what advice Dr. Yamanaka gave to the next generation of scientists, by reading the  $6^{th}$  paragraph.

3. Describe your research plan in the master course in English.