

**2025 年度名古屋大学大学院医学系研究科博士前期課程**

**総合保健学専攻**

**[一般選抜・社会人特別選抜]**

**専門科目 出題の意図**

保健学領域における専門的な学力を問う。

**英 語 出題の意図**

科学英語の基礎的読解力および保健学領域における専門的な学力を問う。

**面 接 質問内容例**

進学の実機、希望する研究内容、それに関する知識と理解度、国際性が求められる研究  
大学大学院生として入学後に取組むべきこと、将来への展望（思い描くキャリアパス、博  
士後期課程への進学希望）など

**2025 年度名古屋大学大学院医学系研究科博士後期課程**

**総合保健学専攻**

**[一般選抜・社会人特別選抜]**

**英 語 出題の意図**

科学英語の基礎的読解力および保健学領域における専門的な学力を問う。

Examinee Number

受験番号

Nagoya University Graduate School of Medicine

2025年度 名古屋大学大学院医学系研究科

Entrance Examination for the Doctoral Program

博士後期課程入学試験

English

英語

Course in Radiological and Medical Laboratory Sciences

Field of Radiological Sciences

医療技術学コース 医用量子科学分野

January 7(Tue) 11:00~12:00

1月7日(火)

Important Points

注意事項

1. Do not open this booklet before the signal to start the examination.

試験開始の合図まで、この冊子を開いてはいけません。

2. This booklet consists of 6 pages, including the cover sheet.

この冊子のページ数は、表紙を含めて6ページあります。

3. Promptly inform the supervisor if there are problems such as omissions, misprints or unclear printing in this booklet.

落丁、乱丁、印刷不鮮明の箇所等があったら、直ちに申し出てください。

4. There are 2 questions. Answer both questions.

問題は2題あります。2題とも解答してください。

5. Before starting your answer, enter your examinee number in the designated space in the upper right of each page.

解答にかかる前に、表紙及び解答欄の右上の所定の箇所に受験番号を記入してください。

6. Write your answers in the designated language, in the designated column. Answers written outside the designated column will not be considered as valid answers.

解答は、指定された言語で所定の欄に記入してください。所定の欄以外に記入した解答は無効です。

7. Do not leave the room before the set time for the examination to end.

試験終了時刻まで退出してはいけません。

8. Do not take this booklet with you when you leave.

この冊子は持ち帰ってはいけません。

# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受 験 番 号



[1] Read the following text and answer the questions either in English or Japanese.

この部分につきましては、  
著作権の都合により公開いたしません。

Extracts from “The Washington Post, 16 April 2024”

BRCA1, 2: breast cancer susceptibility gene 1, 2

# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受 験 番 号



## Answer Sheet

解 答 用 紙

[1]

Q1. What is the primary function of the prostate gland?

Q2. What are the common symptoms of prostate cancer in its early stage?

Q3. What is the meaning of the word "aggressive" in the context of prostate cancer?

Q4. What factors determine how prostate cancer is treated?

Q5. What is the meaning of the term "active surveillance" in the prostate cancer treatment?



# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受 験 番 号

○

○

[2] Read the following text and answer the questions either in English or Japanese.

この部分につきましては、  
著作権の都合により公開いたしません。

Modified from “Critical Reviews in Oncology / Hematology 196 (2024) 104325”

# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受 験 番 号



## Answer Sheet

解 答 用 紙

[2]

Q1. Who is the researcher in parentheses ( ① )?

Q2. What was the significant discovery made by Mole in 1953 regarding radiotherapy, and how did it change the perception of its effects?

Q3. What type of immune cells are activated in the process of the abscopal effect to kill distant tumors?

Q4. What is the potential benefit of integrating radiotherapy with immunotherapy?

Q5. What has been observed about photons and carbon ions in preclinical investigations and clinical case reports?



# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受験番号

## Answer Sheet

解答用紙

[1]

Q1. What is the primary function of the prostate gland?

Producing the seminal fluid (that nourishes and transports sperm)

(精子に栄養を与え、輸送する) 精液の生成

Q2. What are the common symptoms of prostate cancer in its early stage?

No symptoms

自覚症状なし

Q3. What is the meaning of the word "aggressive" in the context of prostate cancer?

Aggressive means cancer spread quickly to other parts of the body.

他の組織に急速に広がる癌

Q4. What factors determine how prostate cancer is treated?

Treatment selection is based on factors such as cancer stage, patient health and preferences.

がんの病期、患者の健康状態、患者自身の治療法の好み等

Q5. What is the meaning of the term "active surveillance" in the prostate cancer treatment?

No treatment is given, but signs of disease progression are quickly detected and active therapeutic intervention is provided in a timely manner.

無治療経過観察ではあるが、病状進行の予兆をいち早くとらえて、時機を逸せず積極的治療介入する。

# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受 験 番 号

○

○

## Answer Sheet

解 答 用 紙

[2]

Q1. Who is the researcher in parentheses ( ① )?

Roentgen

レントゲン博士

Q2. What was the significant discovery made by Mole in 1953 regarding radiotherapy, and how did it change the perception of its effects?

Mole discovered the abscopal effect (AE) in 1953, which showed that tumors outside the target area of radiation therapy could also be inhibited or reduced without direct irradiation. This discovery shifted the perception of radiotherapy from being a purely local treatment to one with potential systemic therapeutic effects.

モールは 1953 年にアブスコパル効果 (AE) を発見し、放射線治療の標的部位以外の腫瘍も、直接照射しなくても抑制・縮小できることを示した。この発見により、放射線治療は純粋な局所治療から、全身的な治療効果が期待できる治療へと認識が変わった。

Q3. What type of immune cells are activated in the process of the abscopal effect to kill distant tumors?

Cytotoxic immune cells are activated to kill distant tumors.

細胞傷害性免疫細胞が活性化されて遠隔腫瘍を死滅させる。

Q4. What is the potential benefit of integrating radiotherapy with immunotherapy?

The integration of radiotherapy with immunotherapy holds immense clinical promise for the systematic eradication of tumors.

放射線治療と免疫療法の統合は、腫瘍の系統的な根絶のために臨床的に非常に有望である。

Q5. What has been observed about photons and carbon ions in preclinical investigations and clinical case reports?

They have observed that both photons and carbon ions can augment the antitumor immune response of the body and potentiate the occurrence of AEs following immunotherapy.

光子と炭素イオンの両方が生体の抗腫瘍免疫反応を増強し、免疫療法後の AE 発生を増強することが観察されています。





# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受験番号

## Answer Sheet

解答用紙

[1]

Q1. What is the primary function of the prostate gland?

Producing the seminal fluid (that nourishes and transports sperm)

(精子に栄養を与え、輸送する) 精液の生成

Q2. What are the common symptoms of prostate cancer in its early stage?

No symptoms

自覚症状なし

Q3. What is the meaning of the word "aggressive" in the context of prostate cancer?

Aggressive means cancer spread quickly to other parts of the body.

他の組織に急速に広がる癌

Q4. What factors determine how prostate cancer is treated?

Treatment selection is based on factors such as cancer stage, patient health and preferences.

がんの病期、患者の健康状態、患者自身の治療法の好み等

Q5. What is the meaning of the term "active surveillance" in the prostate cancer treatment?

No treatment is given, but signs of disease progression are quickly detected and active therapeutic intervention is provided in a timely manner.

無治療経過観察ではあるが、病状進行の予兆をいち早くとらえて、時機を逸せず積極的治療介入する。

# Entrance examination for the Doctoral Program of Nagoya University Graduate School of Medicine

大学院医学系研究科博士後期課程試験問題

Examinee Number

受 験 番 号

○

○

## Answer Sheet

解 答 用 紙

[2]

Q1. Who is the researcher in parentheses ( ① )?

Roentgen

レントゲン博士

Q2. What was the significant discovery made by Mole in 1953 regarding radiotherapy, and how did it change the perception of its effects?

Mole discovered the abscopal effect (AE) in 1953, which showed that tumors outside the target area of radiation therapy could also be inhibited or reduced without direct irradiation. This discovery shifted the perception of radiotherapy from being a purely local treatment to one with potential systemic therapeutic effects.

モールは 1953 年にアブスコパル効果 (AE) を発見し、放射線治療の標的部位以外の腫瘍も、直接照射しなくても抑制・縮小できることを示した。この発見により、放射線治療は純粋な局所治療から、全身的な治療効果が期待できる治療へと認識が変わった。

Q3. What type of immune cells are activated in the process of the abscopal effect to kill distant tumors?

Cytotoxic immune cells are activated to kill distant tumors.

細胞傷害性免疫細胞が活性化されて遠隔腫瘍を死滅させる。

Q4. What is the potential benefit of integrating radiotherapy with immunotherapy?

The integration of radiotherapy with immunotherapy holds immense clinical promise for the systematic eradication of tumors.

放射線治療と免疫療法の統合は、腫瘍の系統的な根絶のために臨床的に非常に有望である。

Q5. What has been observed about photons and carbon ions in preclinical investigations and clinical case reports?

They have observed that both photons and carbon ions can augment the antitumor immune response of the body and potentiate the occurrence of AEs following immunotherapy.

光子と炭素イオンの両方が生体の抗腫瘍免疫反応を増強し、免疫療法後の AE 発生を増強することが観察されています。

