Mastering Research Administration

A Complete Guide to the CRA®, CPRA®, and CFRA® Exams

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Disclaimer:

- These multiple-choice questions and the accompanying text were originally developed in 2022 and were reviewed and updated in August 2025. Grant policies, rules, and regulations may change over time. Please consult official sources for the most current information.
- While it is generally considered best practice to avoid negative phrasing and answer choices such as “all of the above” or “none of the above” in standardized multiple-choice questions, these materials were created for training purposes. In some instances, we have intentionally used such formats.

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CHAPTER 5
National Institutes of Health (NIH)

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5.1. Introduction

The National Institutes of Health (NIH), a part of the Department of Health and Human Services (DHHS), is the main federal agency responsible for research in the areas of medicine and public health.

NIH consists of 27 institutes or centers; 24 of which provide awards to non-federal entities. Some examples of NIH institutes that provide grants are the National Cancer Institute (NCI), the National Eye Institute (NEI), and the National Institute of Aging (NIA). For a full listing of NIH institutes and centers, see the NIH website. NIH is one of the largest funders of R&D in the United States and in the world. In Fiscal Year 2025, NIH appropriation was over $48 billion.

5.2. Grant Mechanisms

NIH offers many different types of grants. The large majority of NIH funding is for conducting research (R series). However, NIH provides other types of grants, such as research training grants for institutions (T series), individual fellowship grants (F series), career grants (K series), center grants (P series), cooperative agreements (U series), and much more.

Each of these series has their own purposes and activity codes. For example, T32 is an institutional training grant for graduate students, and T34 is an institutional training grant for undergraduate students. Likewise, F31 is an individual grant for doctoral students, while F32 is for postdoctoral fellows. It is useful to learn about the different types of grants and their related activity codes. Some salient examples are shown in the table below.

Series	Purpose	Examples	Notes
R series	Research	R01: Major research R21: Risky research R03: Small research	R01: Five years, $500K of direct costs per year R21: Two years, $150K + $125K of direct costs R03: Two years, $50 K direct costs per year

T series	Institutional training	T34: Undergraduate T32: Graduate	
F series	Individual training	F31: PhD student F32: Postdoc	
K series	Career development	K01: Mentored research scientist K08: Mentored clinical scientist	
	Career Transition	F99/K00: Grad to Postdoc K99/R00: Postdoc to Faculty	
P series	Center grants	P20: Research Program Center P30: Center Core Grant P50: Research Program Center	P50: typically, larger than P20
U series	Cooperative agreement	U01: Similar to R01 U54: Center grants	U01: has NIH involvement in the research, while R01 does not

5.3. Announcement Types

NIH issues different types of funding opportunity announcements, including parent announcements, program announcements, and requests for applications.

5.3.1. Parent Announcements

Parent Announcements are broad, standing funding opportunities that NIH institutes and centers issue to allow applicants to submit investigator-initiated (unsolicited) proposals. Parent Announcements provide a standard mechanism (e.g., R01, R21, R03) for investigators to propose their own research ideas that are not tied to a specific priority area.

5.3.2. Program Announcements

Program Announcements are notices highlighting a specific scientific area or priority (e.g., colorectal cancer in young people) for which NIH wants to encourage applications. Program Announcements signal interest in certain research topics but usually use standard review and funding mechanisms.

5.3.3. Requests for Applications

Requests for Applications are formal solicitations for applications in a narrowly defined scientific area. They are a one-time or limited-time opportunity, and typically have dedicated funds.

5.4. NIH Submissions

Investigators can submit applications in response to an announcement (program announcement, parent announcement, or request for applications). These applications are submitted via an institution (e.g., Morgan State University). For the institution to be eligible, certain requirements must be met. For example, the institution must be registered with the Systems for Award Management (SAM.gov), and it should have a designated Signing Official (SO).

Applications are usually submitted via specific electronic portals, such as eRA Commons or ASSIST. The investigators and the SO must be registered with eRA Commons.

All proper documents must be attached. For example, for an R01, NIH may require submission of:

- SF-424 (R&R) Cover Form – including applicant information, project title, dates, contacts, and other basic administration data.
- Project/Performance Site Location(s) – where the research will be conducted.
- Senior/Key Personnel Profile – biosketches, eRA Commons IDs, roles.
- Other Project Information – human subjects, vertebrate animals, foreign involvement, environmental impact, select agents.
- Research Plan (Core of the Application)
    - Specific Aims (1 page)

    - Concise summary of the goals, hypotheses, and expected outcomes.
    - Research Strategy (12 pages for R01)
    - Bibliography & References Cited– Full citations for works referenced.
- Budget & Justification
    - R&R Budget (detailed) or Modular Budget (if ≤$250,000 direct costs/year).
    - Budget Justification – explanation of requested costs, effort, travel, equipment, subawards.
- Supporting Documents
    - Biographical Sketches (NIH format, 5 pages each).
    - Facilities & Other Resources – institutional environment, core facilities, equipment.
    - Equipment – specific major equipment available or needed.
    - Resource Sharing Plans – data sharing, model organisms, genomic data, authentication of biological resources.
    - Letters of Support/Collaboration – from co-investigators, consultants, or institutions.
    - Consortium/Contractual Arrangements – if subawards are involved.
    - Authentication of Key Biological and/or Chemical Resources.
- Compliance-Related Sections (as applicable)
    - Human Subjects Protection – risk/benefit, recruitment, consent, inclusion of women, minorities, and children.
    - Vertebrate Animal Section (VAS) – species, numbers, procedures, care, veterinary oversight.
    - Data and Safety Monitoring Plan (for clinical trials).
    - Clinical Trial Information (if applicable).
- Appendices
    - Allowed only for certain materials (e.g., consent forms, surveys, questionnaires). Not allowed for preliminary data unless specifically permitted.

Failure to submit the proper documents, submitting documents that are not to specification, or submitting unauthorized additional documents (e.g., appendices when not allowed for) **may result in disqualification of the submission.**

5.5. Detailed vs. Modular Budgets

NIH uses two types of budgets: detailed budgets and modular budgets.

Detailed Budgets: Must be used for applications **requesting over $250K** of direct costs per year, where the funding opportunity announcement (FOA) specifically requires a detailed budget. Applicants must use the full budget forms (SF-424 R&R Budget) and must list and justify **all expenses** (personnel salaries, fringe benefits, equipment, travel, supplies, consultants, patient care, consortium costs, facilities & administrative costs, etc.). This will help with greater transparency and accountability for reviewers and NIH grants management.

Modular Budgets: For smaller grants and intended to reduce the workload for the PI and their institution. Applies to R21 and R03, whose direct budget is **less than $250K per year.** It may apply to R01 grants that have smaller budgets, as well. In modular budgets, there is **no need to itemize most categories** (e.g., salaries, supplies, travel). Only a simple budget justification is required (e.g., personnel roles, need for equipment, consortium costs). Modular budgets are calculated in multiples of $25K. For example, it can be $200K per year (200 = 8 x 25), but it cannot be $190K (not a multiple of $25K).

5.6. NIH Reviews

Review of applications to NIH is primarily orchestrated by the Center for Scientific Review (CSR). The Scientific Review Officers (SROs) review the application for completeness; organize groups of external experts, referred to as Study Sections, to review and score the application; communicate the rules of reviews of with the Study Section members; and collate and submit review scores and summaries. CSR has nearly 200 Study Sections.

Applications are reviewed for their:

- **Significance:** Is this an important issue to address?

- **Innovation:** Is the proposed research novel?
- **Approach:** Is the approach scientifically rigorous?
- **Investigators:** Are the investigators qualified to conduct this study?
- **Environment:** Does the research institution have the right facilities, equipment, and other means of support to conduct this study?

All applications are reviewed but only half are scored. After an initial review by three of the Study Section members, the bottom 50% are not reviewed further nor scored. The top 50% are reviewed by the full panel. The best score that an application can possibly get is 10 (perfect score): the higher the number, the poorer the score. For example, a score of 70 is typically a poor score.

If the results are favorable, indicating a high likelihood of funding, other documents may be requested as part of **Just-In-Time (JIT)**. In this stage, NIH may ask for updated other support documentation (to ensure that a PI's support does not go beyond 100%), IRB approvals, etc. A JIT request **does not guarantee** funding, but does suggest a high likelihood of funding.

After the reviews by the SRO and the Study Section, further reviews are done by the:

1. NIH Program Officer;
2. Advisory Council / Board of the IC – a group of scientists, clinicians, and public representatives; and
3. The IC Director.

The final decision rests with the Institute/Center (IC) Director.

5.7. Post-Award Requirements

Awards are often considered to be accepted when the recipient institution draws down the first payment. By drawing down the funds and therefore accepting the award, the recipient institution agrees to the terms and conditions of the award, which are directly or by reference included in the notice of award. Most rules are included by reference in the NIH Grants Management Policy (NIH GPS). However, a specific grant may have more strict requirements, which would be listed in the notice of award. For example, while NIH GPS

may not categorically ban international travel, certain awards may forbid international travel.

The PIs are often required to submit annual technical reports, referred to as Research Performance Progress Reports (RPPRs), and the institution is required to submit periodic (often annual) federal financial reports (FFRs).

All compliance rules – such as obtaining approvals from the institutional review board (IRB) for human subjects research – must be heeded carefully.

5.8. Roles of Grant Officers

NIH has three types of grant officers. It is important to know the roles of these officers to properly communicate with NIH.

5.8.1. Program Officer (PO)

The PO is often a scientist that knows their field of research well. This person develops scientific programs, receives the results of the reviews, and provides proper recommendations to the IC Directors for funding. They are able to answer questions about scientific aspects of the program, scientific aspects of a funded grant, and perhaps what one should do to get a better score, if funding was not proffered. In addition, they review annual scientific reviews – also known as research performance progress reports (RPPR).

5.8.2. Scientific Review Officer (SRO)

The SRO is also typically a scientist. SROs oversee grant application reviews. They review the proposals for completeness, assemble a qualified group of scientists to review the proposals, instruct these reviewers about review roles, monitor a fair review, and summarize the results of review deliberations and the scores. They communicate the findings with the PO, but they do not make funding decisions. They can answer questions such as how to prepare an application for review, what review criteria will be applied, what conflict of interest rules apply, what the timeline for review will be, and how the review process works.

5.8.3. Grant Management Officer (GMO)

The GMO is typically a non-scientist who is an expert in grant management issues (e.g., financial matters and compliance). They review the budget, check the grants for cost allowability, and answer grant management questions, such as whether the remaining budget can be carried over to the next year. Only GMOs are officially authorized to interpret the rules of grant management outlined in the NIH Grants Management Policy (NIH GPS).

Officer Role	Scientist?	Role
Program Officer (PO)	Scientist	Development of NOFOs, and review of scientific reports
Scientific Review Officer (SRO)	Scientist	Review of applications, orchestrating proper review of grant applications
Grant Management Officer (GMO)	Non-scientist	Review of budget, cost allowability, and grant management regulations; authorized to interpret NIH GPS.

5.9. Summary

NIH is the prime funding agency in the world for health-related research. NIH funding has resulted in the substantial expansion of basic science knowledge (e.g., discovery of various types of RNA), the improvement of public health, and the finding of cures for many diseases.

NIH uses several types of announcements and many grant mechanisms for funding extramural research. A researcher and team need to identify the right opportunity and submit applications that are novel, feasible, and scientifically rigorous. They also need to submit all the required documents, communicate with the correct officer(s), and abide by all post-award rules.

5.10. Practice Questions

1. National Institutes of Health (NIH) is:
    a. An independent agency
    b. Part of the Department of Health and Human Services (DHHS)
    c. Part of the Health Resources and Services Administration (HRSA)
    d. An agency with both private (35%) and governmental (65%) funding

2. NIH is composed of _____ institutes or centers (ICs), _____ of whom fund external awards.
    a. 20, 16
    b. 23, 20
    c. 27, 24
    d. 29, 25

3. Which NIH institute/center (IC) has the primary responsibility to focus on cancer research?
    a. CSR
    b. NCI
    c. NICHD
    d. NCCAMS

4. Which NIH institute/center (IC) does NOT have extramural funding authority?
    a. National Institute of Aging
    b. National Institute of General Medical Sciences
    c. NIH Clinical Center
    d. Fogarty International Center

5. In Fiscal Year 2025, the total NIH appropriations were approximately:
    a. $15 billion
    b. $22 billion
    c. $33 billion
    d. $48 billion

6. NIH “T series” awards are:
    a. Individual training grants
    b. Institutional training grants
    c. Institutional equipment grants
    d. Cooperative agreements

7. NIH “F series” awards are:
    a. Individual training grants
    b. Institutional training grants
    c. Institutional equipment grants
    d. Cooperative agreements

8. NIH “K series” awards are:
    a. Institutional training grants
    b. Program/Center development grants
    c. Cooperative agreements
    d. Career development awards

9. NIH “U series” awards are:
    a. Career development awards
    b. Individual fellowship awards
    c. Cooperative agreements
    d. Small businesses awards

10. Which type of grant receives the largest share of NIH extramural awards?
    a. R01
    b. U01
    c. F32
    d. T34

11. NIH T32 and T34 awards are, respectively institutional _____and _____training grants.
    a. Undergraduate, graduate
    b. Graduate, undergraduate

c. Postdoctoral, graduate
d. Postdoctoral, undergraduate

12. National Research Service Awards (NRSA) are for:
    a. Life-time service of exemplary researchers
    b. Researchers who have conducted research that benefit the entire nation
    c. Research fellowship awards
    d. Career development grants

13. NRSA is for:
    a. Basic research
    b. Human clinical research
    c. Veterinary research
    d. Any of the above

14. NRSA was established through _____and is for _____ institutions.
    a. Legislation, domestic
    b. Legislation, domestic or international
    c. Executive order, domestic
    d. Executive order, domestic or international

15. NIH F99/K00 awards are for the transition from:
    a. High school to undergraduate degree
    b. Undergraduate to graduate degree
    c. Predoctoral degree to postdoctoral fellowship
    d. Postdoctoral fellowship to junior faculty position

16. NIH K99/R00 awards are for transition from:
    a. High school to undergraduate degree
    b. Undergraduate to graduate degree
    c. Predoctoral degree to postdoctoral fellowship
    d. Postdoctoral fellowship to junior faculty position

17. K99/R00 awards also called:
    a. Emerging Global Leader Award
    b. Pathway to Independence Award
    c. Midcareer Investigator Award in Biomedical and Behavioral Sciences
    d. Senior Research Scientist Award

18. NIH P30 awards are:
    a. Individual training grants
    b. Individuals career development grants
    c. Research grants
    d. Center development grants

19. Which NIH grant type has the highest annual direct cost cap?
    a. R01
    b. R03
    c. R15
    d. R21

20. Which NIH grant mechanism is used for supporting conferences?
    a. R03
    b. R13
    c. R21
    d. U01

21. Which funding mechanism is used by all NIH Institutes/Centers (ICs)?
    a. R01
    b. R13
    c. R15
    d. X01

22. Which one is an NIH education/resource grant?
    a. R25
    b. R41
    c. R42
    d. R56

23. Which one is an NIH individual postdoctoral NRSA award?
    a. F31
    b. F32
    c. T32
    d. T34

24. Which NIH award requires more involvement from the sponsor?
    a. R01
    b. K01
    c. U01
    d. R03

25. Which NIH grant activity code pertains to STTR Phases I and II?
    a. R31/32
    b. R41/42
    c. S31/32
    d. S41/42

26. Which grant activity code pertains to SBIR Phases I and II?
    a. R31/32
    b. R41/42
    c. S41/42
    d. R43/44

27. Advance permission from the NIH Program Officer is required if the annual budget for an R01 grant goes beyond:
    a. $250K, direct costs
    b. $500K, direct costs
    c. $250K, total costs
    d. $500K, total costs

28. R03 grants provide up to _____ for two years.
    a. $50K per year direct costs
    b. $100K per year direct costs

c. $50K per year total costs
d. $100K per year total costs

29. Which NIH grant receives no F&A allowance?
    a. T32
    b. K01
    c. F32
    d. R01

30. Which two NIH grant mechanisms are set aside for institutions that do not receive substantial NIH funding?
    a. R01, R13
    b. R13, X01
    c. R15, R16
    d. R15, X01

31. Which term refers to an NIH funding opportunity announcement that is a one-time call with set aside funds?
    a. Parent announcement
    b. Program announcement
    c. Request for Applications
    d. All of the above

32. The “Specific Aims” of an R01 application is limited to:
    a. 150 words
    b. 250 words
    c. 1 page
    d. 2 pages

33. Which of the following component of an application is used as the primary vehicle to assess the qualifications of the investigators?
    a. Specific aim
    b. Biosketch
    c. SF-424
    d. Bibliography

34. Biographical sketches (biosketches) are submitted for:
    a. Only the contact principal investigator
    b. Principal investigators
    c. All key personnel
    d. All study personnel

35. SF-424 forms are signed by the:
    a. The Principal Investigator of the project
    b. The Dean of the School
    c. The NIH Program Officer
    d. The applicant institution's Signing Official

36. NIH modular budgets are appropriate when the annual _____ cost is less than _____.
    a. Direct, $250K
    b. Total, $250K
    c. Direct, $500K
    d. Total, $500K

37. NIH has three main groups of officers who manage working with the extramural community. Which one is NOT one of these three?
    a. Program Officer
    b. Academic Officer
    c. Scientific Review Officer
    d. Grants Management Officer

38. Questions regarding cost allowability for NIH-funded grants should be submitted to the NIH:
    a. Program Officer
    b. Scientific Review Officer
    c. Grant Management Officer
    d. Institute/Center (IC) Director

39. For NIH awards, who makes the ultimate decision about funding an award?
    a. Program Officer
    b. Scientific Review Officer
    c. Institute/Center (IC) Chief Grant Management Officer
    d. Institute/Center (IC) Director

40. A grant application has been submitted to NIH and is reviewed by a study section. Who has the responsibility to provide a summary of the review deliberations?
    a. Program Officer
    b. Scientific Review Officer
    c. Grant Management Officer
    d. Institute/Center Director

41. All of the following are duties of the Scientific Review Officer, EXCEPT:
    a. Reviewing applications for completeness and conformance to requirements
    b. Ensuring fair review of grant applications
    c. Compiling and sharing the review summary
    d. Developing programmatic initiatives

42. Who is responsible for interpreting the NIH Grant Management Policy (NIH GPS)?
    a. Scientific Review Officer
    b. Grant Management Officer
    c. Program Officer
    d. Intramural Program Principal Investigator

43. Who develops new initiatives and provides programmatic oversight after funding of an NIH grant application?
    a. Scientific Review Officer
    b. Grant Management Officer
    c. Program Officer
    d. Intramural Program Principal Investigator

44. NIH Grants Management Officers typically want to receive official communications from the:
    a. PI
    b. Respective dean
    c. Signing Official
    d. Vice President for Research

45. Which of the following is NOT one of the NIH review criteria for R01 applications?
    a. Expertise of the investigators
    b. Novelty of the project
    c. Carnegie classification of the university
    d. Soundness of the research project methods

46. To submit an application to NIH, the institute, the Signing Official, and the PI must be, respectively registered with _____.
    a. SAM, eRA Commons, eRA Commons
    b. SAM, SAM, eRA Commons
    c. eRA Commons, SAM, SAM
    d. SAM, eRA Commons, SAM

47. Which of the following is typically submitted during the Just In Time (JIT) request?
    a. Other support
    b. Certificate of IRB approval
    c. Evidence of compliance with education in the protection of human subjects
    d. All of the above

48. What annual direct cost is the threshold for using modular budget when submitting NIH applications?
    a. $50,000
    b. $100,000
    c. $250,000
    d. $500,000

49. Which of the following can be a total direct cost for an NIH modular budget?
    a. $145,000
    b. $155,000
    c. $165,000
    d. $175,000

50. NIH modular grant may be used for all of the following activity codes EXCEPT:
    a. R01
    b. R44
    c. U01
    d. R03

51. Which of the following is a requirement for using the NIH modular budget?
    a. Direct costs (minus consortium F&A) of $250K or less
    b. The applicant being domestic
    c. No use of human fetal tissue
    d. All of the above

52. A PI submits a modular budget for an R01 application requesting $250,000 for Year 1, $250,000 for Year 2, and $200,000 for Year 3. The budget, as the PI has determined, is for salaries, supplies, equipment, international travel, and two subawards. Additional budget justifications may be needed for:
    a. International travel, budget differences across the years
    b. International travel, equipment
    c. Budget differences across the years, subawards
    d. Subawards, supplies

53. Using NIH grants, animals (for animal studies) are purchased as:
    a. Supplies
    b. Contractual
    c. Equipment
    d. Fringe benefits

54. When multiple institutions work together as a consortium to submit an application to NIH:
    a. There must be a lead institution.
    b. ASSIST has the capability to handle such consortia.
    c. All subrecipient budgets must be included in the lead institution budget.
    d. All of the above.

55. NIH salary cap is equivalent to:
    a. Federal Executive Level I salary
    b. Federal Executive Level II salary
    c. Federal Executive Level III salary
    d. Federal GS-14 salary

56. A doctor's institutional base salary is $280,000 per year. This doctor spends 20% of their time on an NIH-funded project and the rest on work for their institution. Assuming that the NIH salary cap is $200,000, the doctor charges _____ to the federal grant and _____ to the institution.
    a. $40,000, $234,000
    b. $40,000, $240,000
    c. $56,000, $234,000
    d. $56,000, $240,000

57. Grants are submitted to NIH by:
    a. The PI
    b. The Department Chair
    c. The Signing Official
    d. The University President

58. NIH study sections are primarily managed by the NIH _____ . NIH has approximately ____ standing study sections.
    a. Clinical Center, 50
    b. Clinical Center, 200
    c. Center for Scientific Review, 50
    d. Center for Scientific Review, 200

59. The reviewers on NIH study sections are typically:
    a. NIH Program Officers
    b. NIH Intramural Scientists
    c. NIH Scientific Review Officers
    d. Extramural Scientists

60. Which one is a better score when a grant is reviewed by an NIH study section?
    a. 12
    b. 33
    c. 52
    d. 78

61. A grant is reviewed by a study section and, the PI receives the score for the application. Which score does NOT exist?
    a. 7
    b. 10
    c. 17
    d. 77

62. After reviews are completed, NIH typically shares the scores (if scored) within one _____ and the summary statements within one _____.
    a. Hour, day
    b. Day, week
    c. Week, Month
    d. Month, Year

63. If an application is reviewed by the NIH for merit, but is not discussed within the study section and does not receive a score, that usually means that the application was among the:
    a. Top 20%
    b. Bottom 20%
    c. Top 50%
    d. Bottom 50%

64. A PI uses funds from his NIH grant to fly from Washington, DC, USA, to Vancouver, Canada. For NIH grant purposes, this is considered_____ travel and _____ to comply with Fly America Act.
    a. Domestic, needs
    b. Domestic, does not need
    c. International, needs
    d. International, does not need

65. A faculty member uses their federal grant to travel to Durban, South Africa. The first leg of their flight is from Atlanta, GA, USA to Johannesburg, South Africa, and the second leg is from Johannesburg, South Africa to Durban, South Africa. To abide by Fly America Act, she must use a US flag carrier:
    a. For both travel legs.
    b. For the first travel leg but not necessarily the second one.
    c. Only if the price of the US flag carrier is less than other carriers.
    d. Only if the price of the US flag carrier is less than 150% of other carriers.

66. Which of the following does NOT require prior approval from the NIH?
    a. A relative reduction of 30% in the PI effort
    b. A relative reduction of 30% in the other key personnel effort
    c. A change in key personnel
    d. The first no-cost extension

67. The abbreviation for the annual programmatic report sent to the NIH is:
    a. AFR
    b. FFR
    c. RPPR
    d. APRR

68. The abbreviation for the annual financial report sent to NIH is _____ and the information is sent to the NIH on _____ form.
    a. FFR, SF-424
    b. FFR, SF-425
    c. AFR, SF-424
    d. AFR, SF-425

69. When submitting NIH grants, a Data Sharing Plan is required for grants that:
    a. Award $500K per year and above
    b. Award $1M per year and above
    c. Have activity codes R01, R21, and R03
    d. Receive full F&A rates

70. NIH requires all publications resulting from its funding to be posted as a PDF copy on PubMed Central within _____ months of publication, and this is in accordance with the _____.
    a. 6 months, Sunshine Act
    b. 12 months, Open Data Policy
    c. 6 months, Sunshine Act
    d. 12 months, Open Data Policy

5.11. Answers to Practice Questions

1. B NIH is a part of DHHS, therefore, it is not an independent agency. Examples of independent agencies, which are not under departments, are NSF and NASA.

2. C Twenty-four (24) of the twenty-seven (27) institutes or centers provide extramural grants. The three that do not directly provide grants are the Center for Scientific Review (CSR), NIH Clinical Center (CC), and the Office of the Director (OD).

3. B NCI stands for the National Cancer Institute.

4. D In Fiscal Years 2025, the NIH appropriation was approximately $48 billion. This is a substantial increase compared to only a few years ago. In FY2022, the appropriation was approximately $33 billion.

5. D

6. B

7. A

8. D

9. C

10. A The large majority of NIH funds are spent on extramural research, i.e., research outside the walls of NIH. The main NIH mechanism for funding research at universities and other research institutions is the R01 grant.

11. B

12. C NRSA awards are NIH-funded fellowships that support research training for doctoral and post-doctoral students. They are also as the Ruth Kirschstein awards, in honor of Dr. Ruth Kirschtein, former director of the NIGMS and Acting Director of the NIH. These awards often support stipends, tuition, training-related expenses, and health insurance for trainees.

13. D

14. Foreign institutions are not eligible for NRSA grants. Also, individuals supported by NRSA grants must be U.S. citizens or green card holders.

15. C

16. D This is an award to transition postdoctoral students to being qualified and capable of winning R series grants. This mechanism was established because many R01 grants are awarded to senior faculty members, so this mechanism was established to help junior faculty and generate “new blood.”

17. B

18. D As an example, comprehensive cancer centers may get large P30 awards (approximately $4 to $5 million per year).

19. A See the notes. R01 is for major research grants, whereas R03 is for small research grants. R21 is for risky research grants, so it has a lower limit to reduce the risk. R15 is typically set aside for institutions that receive a smaller number of grants.

20. B

21. A R01 is THE MAIN mechanism for funding grants and is used by all ICs.

22. A R25 is for education. R41 and R42 are for phases I and II of STTR. R56 is for high-priority, short-term project awards.

23. B F series is for individual fellowship awards. F31 is for doctoral students, while F32 is for postdoctoral students.

24. C Any NIH grant starting with U is a cooperative agreement, which by definition, means there is substantial involvement from the federal funding agency.

25. B

26. D

27. B

28. A

29. C T32 is a training grant, which usually includes 8% of MTDC in indirect costs. K01 is a career grant and sustains 8% of MTDC in indirect costs. F32 is an individual fellowship, which does not receive any F&A. R01 receives the institution's federally negotiated indirect cost rate (NICRA).

30. C R15 is set aside for institutions that do not already receive substantial NIH grants. The applicant institutions must have received no more than $6 million in total of NIH support over four of the past seven fiscal years. R16 is also for institutions receiving relatively little funding from NIH, but it has less restrictions. For R16 awards, the applicant institution must have received less than $6 million of research project grants (RPG) over four of the past seven years. RPG includes only certain grants, such as R01, but excludes others.

31. C

32. C

33. B Biosketches are used to describe the training and scientific accomplishments of the key personnel.

34. A

35. D The signature of the signing official documents that the institution has agreed to the submission and the details within. Please note that NIH recognizes the institution, not the PI, as the entity that is authorized to submit a funding proposal.

36. A Modular budgets are used for smaller grants and are intended to reduce the workload of the PI and their institution. Modular budgets are required for R21 and R03, whose direct budgets are less than $250K per year. They may apply to R01 grants that have smaller budgets as well. In modular budgets, there is no need to itemize most categories (e.g., salaries, supplies, travel). Only a simple budget justification is required (e.g., personnel roles, need for equipment, consortium costs).

37. B

38. C

39. D While reviews are done by a peer group, and the NIH Program Officer may make recommendations, the ultimate decision about funding an award is at the discretion of the Institute/Center Director (e.g., Director of the National Cancer Institute).

40. B SRO is the one who organizes the review and submits a summary of the deliberations.

41. D Developing programmatic initiatives (e.g., investigating the causes of autism) is done by the program officers.

42. B Only GMOs are authorized to interpret NIH GPS rules.

43. C

44. C Official communications for grant management – scientific ones – should happen via official channels, i.e., via the Signing Official (SO) of the university or research institution.

45. C

46. A

47. D

48. C

49. D Only $175,000 is a multiple of $25,000.

50. B Some grant mechanisms require a detailed budget, even if the amount of direct costs is below the threshold. R44 (Phase II SBIR) is one of them.

51. D Using NIH modular budget has other requirements besides the direct cost amount. For example, foreign institutions cannot use modular budgets.

52. C When using modular budgets, budget differences across the years must be explained and justified. Likewise, subawards must be explained.

53. A If you don't know the answer, you can find the correct answer by eliminating the other choices. For example, fringe benefits are benefits that are paid on top of salaries. Equipment has to be over $10,000 (or the university threshold of capitalization) and have an expected life of at least one year.

54. D

55. B NIH, as well as other DHHS agencies, have a cap on how much the top salary can be. This cap is Executive Level II Salary. In FY2025, this level was $225,700 annually. If key personnel is to be paid more than that, the excess salary must be paid by a source other than the grant, such as university funds.

56. B 20% of this doctor's time is: $280,000 x 0.2 = $56,000. However, because of the salary cap, only 20% of the executive level II salary, i.e., 0.2 x $200,000 = $40,000, can be charged to the grant. The rest of the doctor's salary ($280,000 - $40,000 = $240,000) must come from the institution.

57. C NIH recognizes the institution, not the PI. Therefore, the grant must be submitted via the authorized person designated by the institutions, i.e., the signing official.

58. D The primary role of the Center for Scientific Review (CSR) is to review grant applications. They hire Scientific Review Officers (SROs).

59. D

60. A

61. A If one receives a score of 7, that must be a typographical error. There is no score lower (better) than a perfect score of 10.

62. C

63. D

64. A

65. B

66. D Please see the Prior Approval chapter. Any effort reduction of 25% or more requires prior approval. Likewise, any change in key personnel requires prior approval.

67. C RPPR stands for Research Performance Progress Report.

68. B FFR stands for Federal Financial Report. These reports are completed on OMB's SF-425 forms.

69. A

70. B