The success of the National Cancer Plan depends on including everyone in cancer research

An underutilized opportunity to build capacity in cancer research: NIH Research Enhancement Award (R15)

20 awards in FY23; 14% success rate
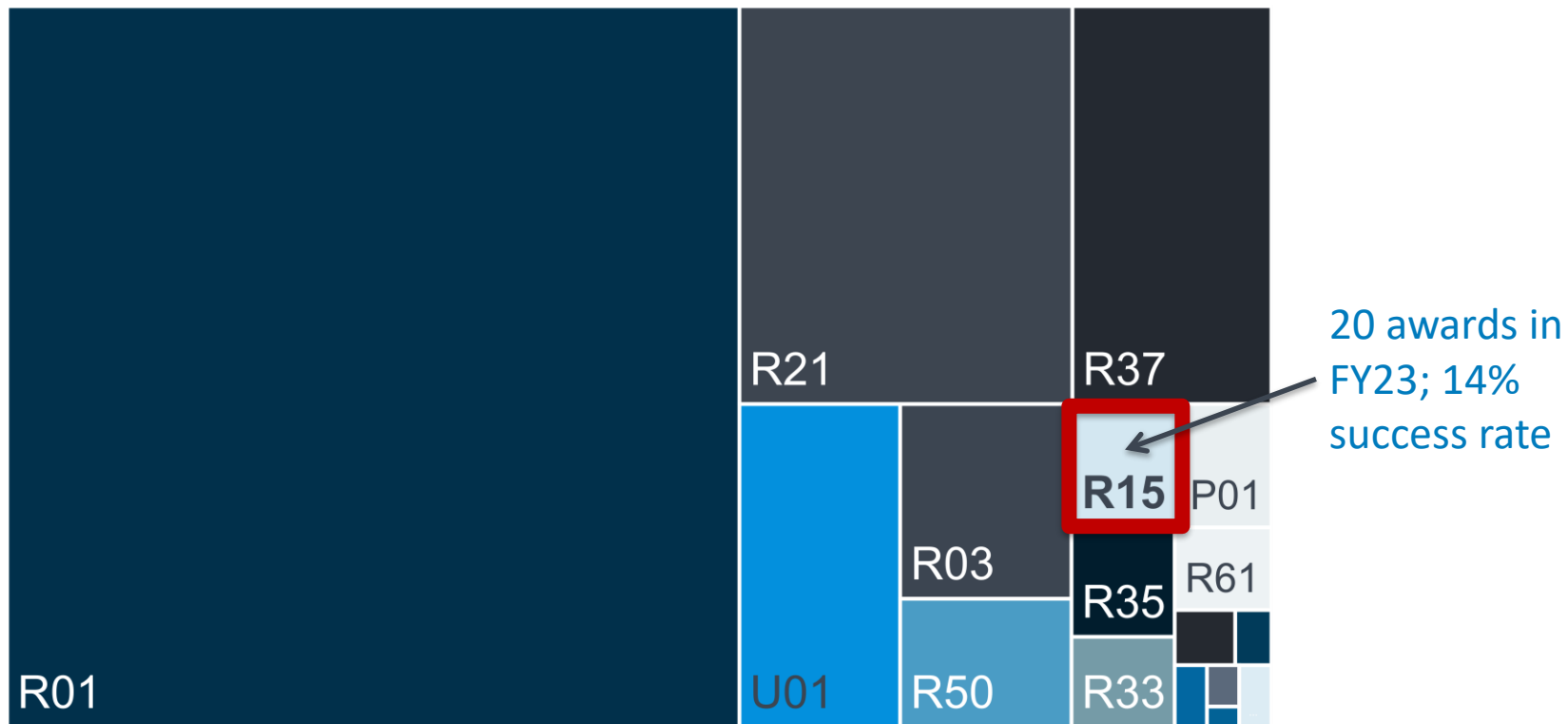
What is a R15 and who should consider applying?

The goal of the R15 is to strengthen basic and clinical research environments at institutions **without significant NIH funding***.

First and foremost, the R15 is a **research award** with up to 3 years of support ($300,000 direct cost for the entire grant period).

An important secondary goal of the R15 is to **support training** of undergraduates and health professionals.

*less than $6M in total NIH funding for 4 of the last 7 fiscal years

There are two distinct R15 opportunities at NIH:

The most important aspect of a R15 application is proposal of a meritorious research project (with a strong training component).

AREA – *Academic Research Enhancement Award*

PAR-21-155

- Meaningful inclusion of undergraduates in the research plan required; majority of research team
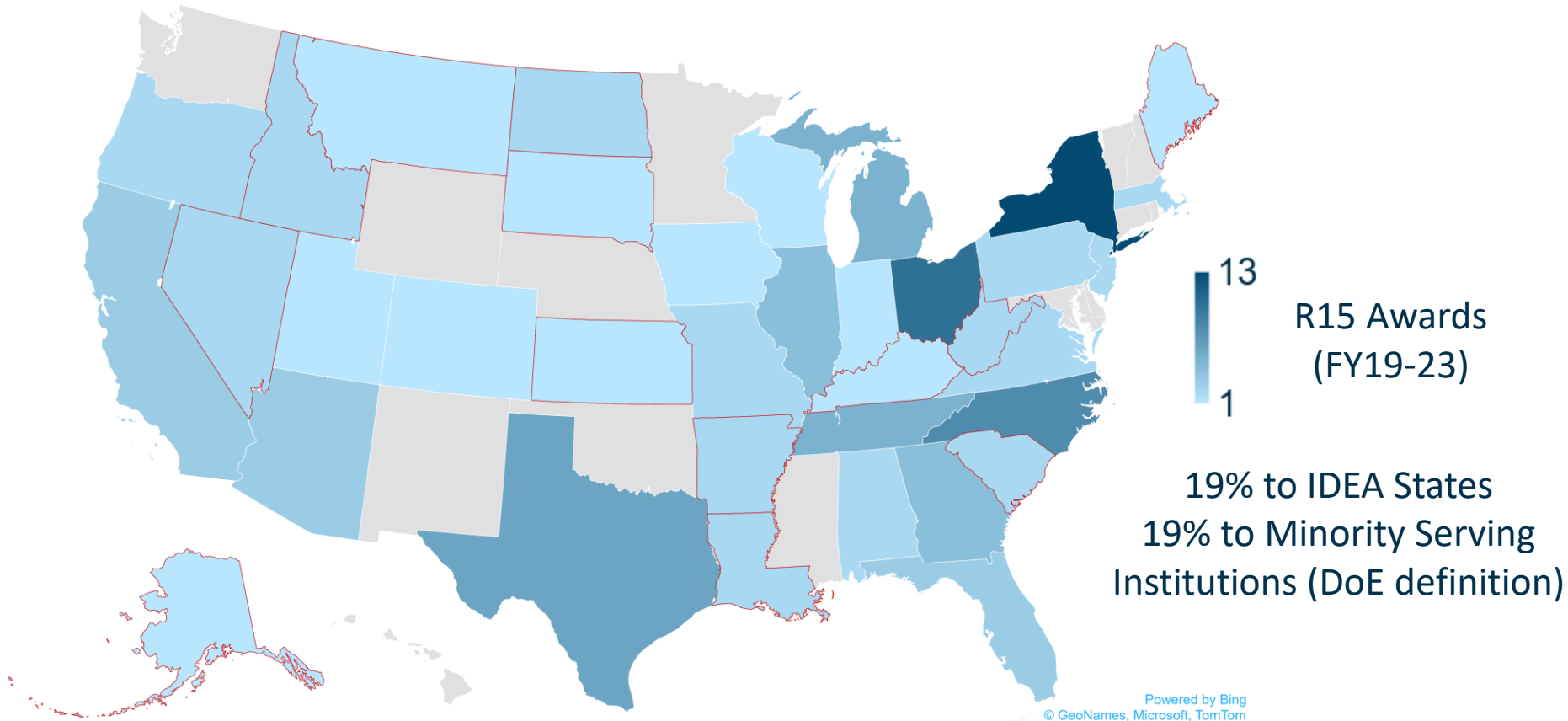
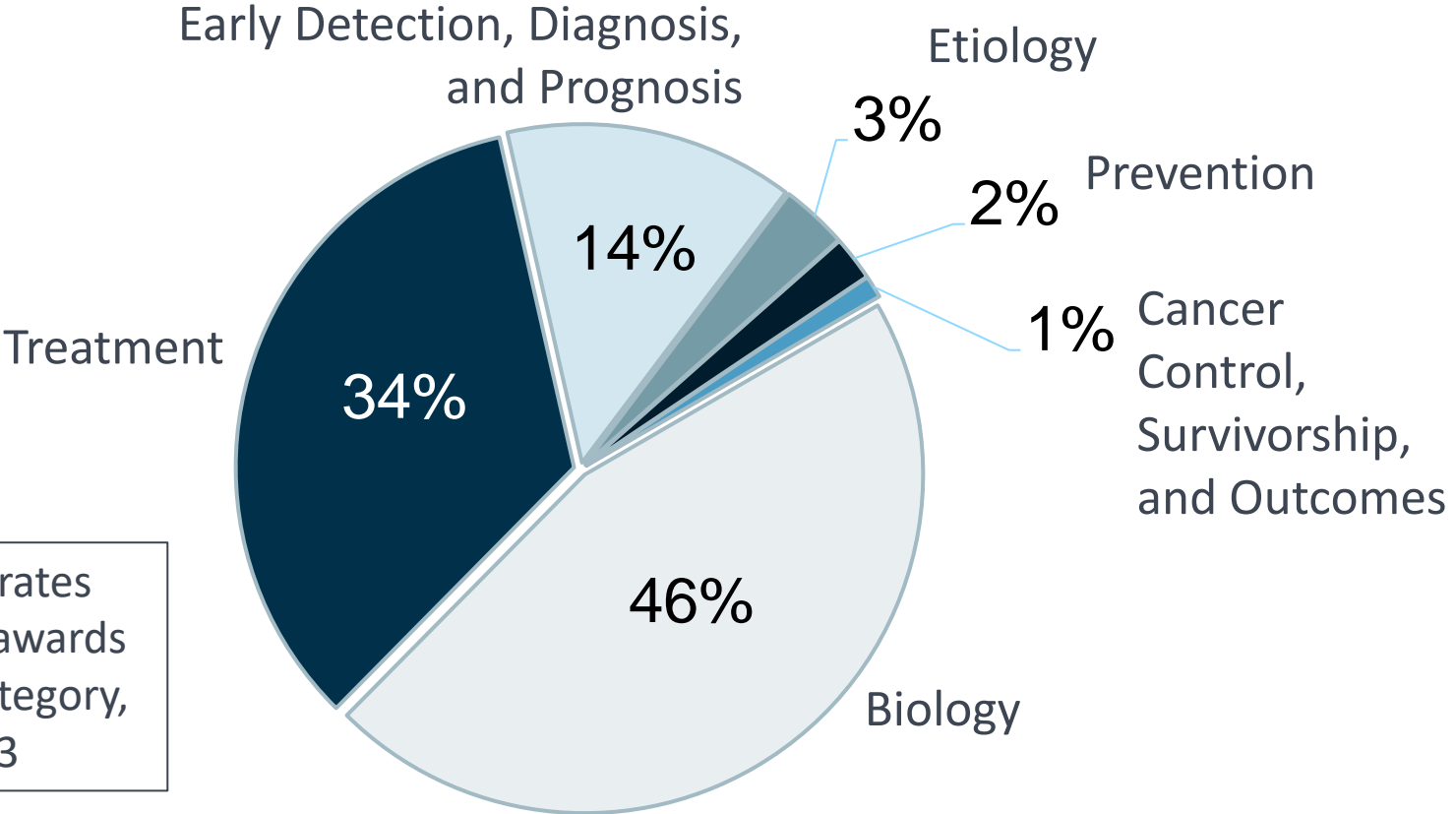REAP – *Research Enhancement Award Program*

PAR-22-060

- Support for health professionals and graduate schools with limited NIH funding

Inclusion of students traditionally underrepresented in research is of specific interest to NIH/NCI via NOT-OD-22-019

NCI R15 awardees are located across all regions of the U.S.

13

1

R15 Awards
(FY19-23)

19% to IDEA States
19% to Minority Serving
Institutions (DoE definition)

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FY19-23 data from NIH Reporter; Red outline indicates IDEA State

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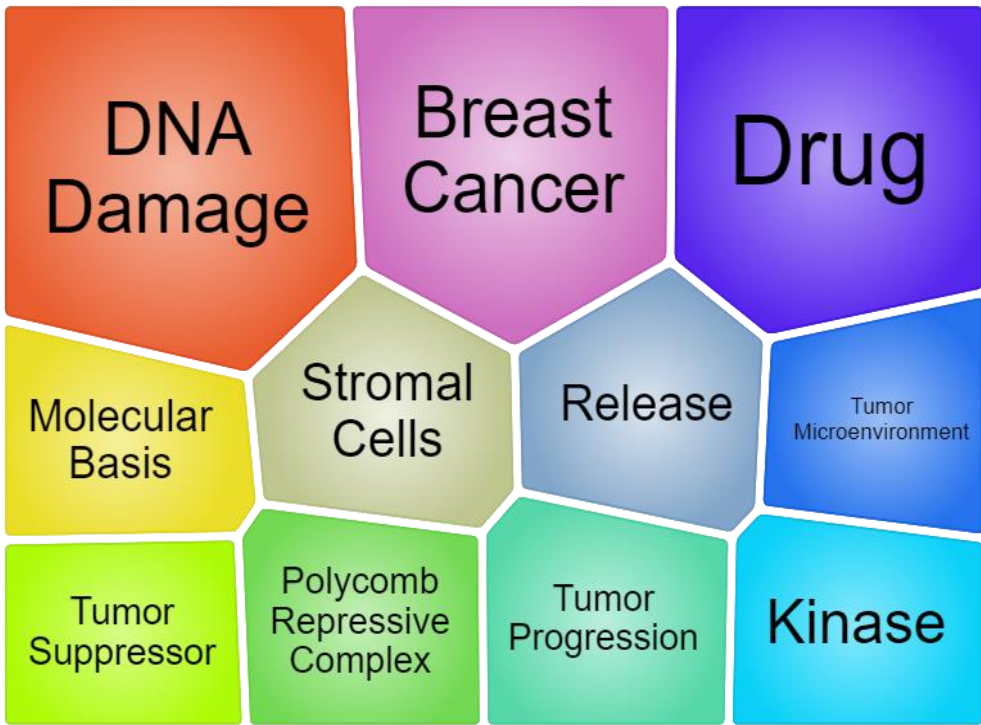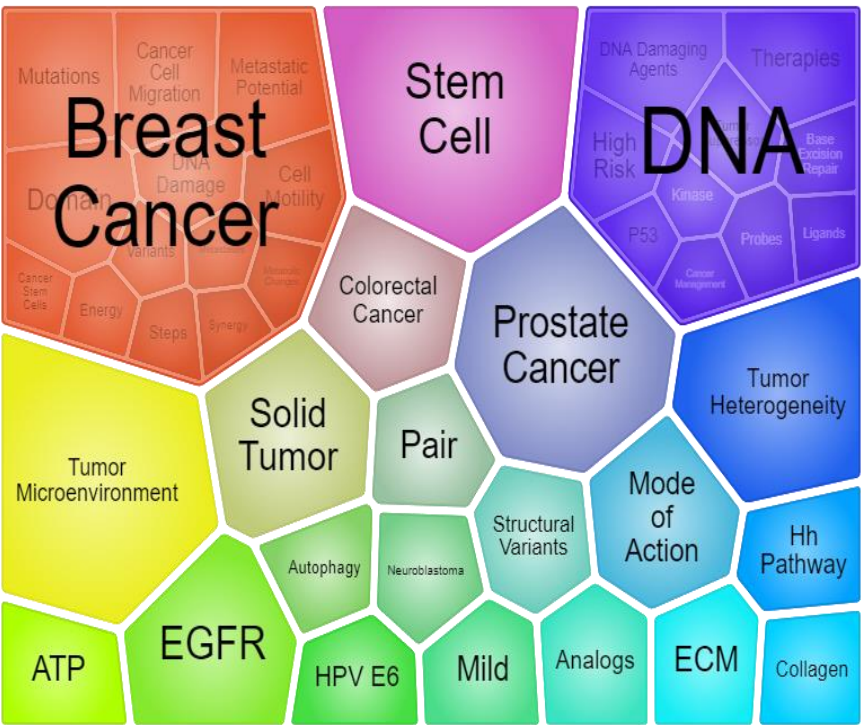# NCI R15 awardees conduct research across the cancer continuum

Plot illustrates the % of awards in CSO category, FY18-FY23

NCI Division of Cancer Biology R15 awardees address a wide range of cancer research topics and challenges

AREA (47 awards)

Breast Cancer — Mutations, Cancer Cell Migration, Metastatic Potential, DNA Damage, Cell Motility, Domain, Variants, Cancer Stem Cells, Energy, Steps, Synergy

Stem Cell

DNA — DNA Damaging Agents, Therapies, High Risk, Base Excision Repair, Kinase, P53, Probes, Ligands, Cancer Management

Colorectal Cancer

Prostate Cancer

Tumor Heterogeneity

Solid Tumor

Pair

Tumor Microenvironment

Mode of Action

Structural Variants

Hh Pathway

Autophagy

Neuroblastoma

ATP

EGFR

HPV E6

Mild

Analogs

ECM

Collagen

REAP (12 awards)

DNA Damage

Breast Cancer

Drug

Molecular Basis

Stromal Cells

Release

Tumor Microenvironment

Tumor Suppressor

Polycomb Repressive Complex

Tumor Progression

Kinase

Logistics and FAQs when considering an R15 application

R15 ABCs

- Up to $300,000 direct cost over 3 years

- 12-page Research Strategy

- Multiple PIs are allowed, if all eligible

- Provost letter-verify the eligibilities

- Grants are renewable

- Preliminary data

- Institution must not have more than $6M/year in 4 of the last 7 years of total NIH support

- Standard application deadlines: February 25, June 25, and October 25

R15 Principal Investigator Eligibility

Primary appointment at eligible institution

- **AREA:** Non-Health Professional School faculty

- **REAP:** Heath Professional School or Graduate School faculty

- **PI may not have an active NIH grant at time of award***

  - Can be co-I on another PI's research NIH grant

- **AREA and REAP are mutually exclusive**

- **Ask your provost, NIH does not have a list**

*Instrumentation awards (S10), conference grants (R13) and institutional training grants (T32s) do not count against R15 PI eligibility

R15 or R01, which route is the best choice right now?

- Limited-scale research project

- Budget, project period smaller than R01

- Fewer resources may be available at your institution

- Essential to illustrate opportunities for students

- Bolster the research ecosystem of the institution

R15 projects must propose a meaningful scientific contribution

Driven by an interesting scientific question addressing a gap in the field

Preliminary data

- Foundation to support the hypothesis
- Demonstrate feasibility

Approach

- Appropriate scope
- Resources in-hand

Publishable unit to:

- Make an important scientific contribution
- Enrich the experience of the student
- Improve the research capacity of the institution

R15 projects must propose meaningful student involvement

- Describe in research strategy and /or biosketch (numbers and quality)

- Discuss history of mentoring students and outcomes

- Highlight co-authored papers

- Plan for recruitment and multi-semester commitment

- Be specific:
  - Design, perform, and troubleshoot experiments
  - Collect & analyze data
  - Help draft manuscripts
  - Additional collaborative interactions
  - Present at meetings and conferences (e.g. lab meetings, campus events & conferences)

R15 budget considerations

- Support a wide range of expenses

- Include student wages

- Collaborator salaries (subawards)

- Travel/conference support

- Consider a (part time/seasonal) technician

Review

- Special emphasis panel

- Standing study sections

- List expertise in Assignment Request Form

  ➢ Feasibility and meaningful student involvement

  ➢ Preliminary data

  ➢ Facilities and Other Resources

Useful Tips and other information

- NIH Reporter: https://reporter.nih.gov/
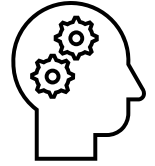
  - Matchmaker tool

- R15 website: https://grants.nih.gov/grants/funding/r15.htm

- Include a data sharing plan (new)

- **Talk to a program officer**

Thank you, please don't hesitate to reach out with questions!
Slides are available via email:
Ruibai Luo: luoru@mail.nih.gov
Shannon Hughes: shannon.hughes@nih.gov

cancer.gov   **cancer.gov/espanol**