

## NIDDK's Mission in Urology Research and Training

### Overview

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) (<http://www2.niddk.nih.gov/>) supports a broad range of basic and clinical research and training efforts relevant to benign urologic disease. The NIDDK's **Division of Kidney, Urologic, and Hematologic Diseases (DKUH)** houses the **Urology Programs** and has the primary responsibility for advancing the Institute's mission interests in urology.

### Major scientific areas of interest in the Urology Programs Include:

- Urology Basic Science, including Basic Studies of the Bladder, Prostate, and the Genitourinary Tract
- Developmental Biology of the Urogenital Tract
- Urology Clinical Science and Clinical Trials
- Urology Women's Health Studies
- Urology Genetics and Genomics
- HIV/AIDS
- Pediatric Urology
- Urologic Diseases Epidemiology
- Urology Technology Development

### The NIDDK promotes urology research and training through numerous activities, including:

- Funding of investigator initiated and Institute solicited individual research projects (e.g., R01s)
- Developing basic and clinical research networks
- Creating resources for investigators
- Enhancing training and career development
- Organizing scientific conferences and workshops
- Developing strategic plans to direct research efforts
- Advancing outreach efforts for the scientific and patient communities
- Promoting urology small business enterprises
- Collaborating with other Federal agencies, advocacy groups, professional organizations, etc.

### The NIDDK Urologic Diseases Information Clearinghouse (NKUDIC)

<http://kidney.niddk.nih.gov/>

The NKUDIC is an information dissemination service of the NIDDK. The NKUDIC was established in 1987 to increase knowledge and understanding of urologic and kidney disease among patients, their families, health care professionals, and the general public.

## Training and Career Development

### Pre- and Post-Doctoral Training

#### Ruth L. Kirschstein National Research Service Awards (NRSA)

<http://www2.niddk.nih.gov/Funding/TrainingCareerDev/>

#### Individual (F30, F31, F32)

•**F30** provides predoctoral support for MD/PhD students during the PhD phase of their training and may also be used to support the final years of medical school. <http://grants.nih.gov/grants/guide/pa-files/PA-10-107.html>

•**F31** awards are designed for under-represented minorities at the pre-doctoral level. <http://grants.nih.gov/grants/guide/pa-files/PA-10-109.html>

•**F32** awards provide support for fellows who have received their MD, PhD, or other doctoral-level degree. Fellows need to identify a sponsor and plan a research project before applying for 1 to 3 years of funding. <http://grants.nih.gov/grants/guide/pa-files/PA-10-109.html>

#### Institutional (T32, T35)

In place at many major universities, these grants provide pre- and postdoctoral support to fellows at those institutions. To be appointed to a training grant, contact the director of the training program at your institution. A listing of all NIDDK-supported training programs is available at <http://www2.niddk.nih.gov/Funding/TrainingCareerDev/GrantT32PIForTraining.htm>

### Career Development Awards (Ks)

<http://www2.niddk.nih.gov/Funding/TrainingCareerDev/>

➤ **K01 (Mentored Research Scientist Development Awards)\***  
Support Ph.D. scientists who have at least 3 to 5 years of postdoctoral training and who need to transition to independence.

➤ **K08 (Mentored Clinical Scientist Development Awards)\***  
Aimed at physician-scientists to transition them to independence.

➤ **K23 (Mentored Patient-Oriented Research Career Development Awards)\***  
Aimed at clinical investigators engaged in patient-based research.

➤ **K24 (Investigator Awards in Patient-Oriented Research)**  
Support mid-career physicians in patient-oriented research with funded clinical investigations and who are mentoring young clinicians.

➤ **K25 (Mentored Quantitative Research Career Development Awards)**  
Available to individuals with quantitative (e.g., engineering, mathematics, computer science, etc.) backgrounds who wish to pursue biomedical research.

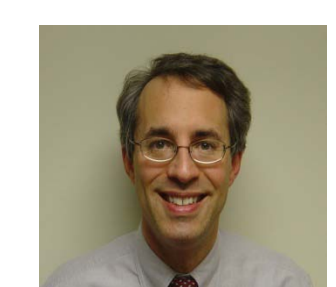
*\*NIDDK-funded K awardees may apply for a small grant (R03) to obtain additional funding during the last 2 years of their 5-year K award.*

## Urology Contacts

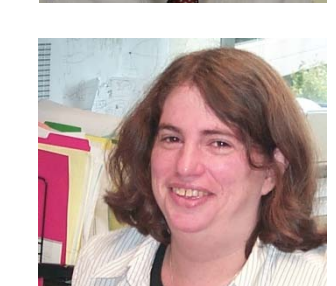
### Division of Kidney, Urologic & Hematologic Diseases (DKUH) Urology Staff

[http://www.niddk.nih.gov/welcome/org/tables/kuh\\_table.htm](http://www.niddk.nih.gov/welcome/org/tables/kuh_table.htm)

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### NIDDK Review Branch

[http://www.niddk.nih.gov/welcome/org/tables/dea\\_table.htm#RB](http://www.niddk.nih.gov/welcome/org/tables/dea_table.htm#RB)

The **NIDDK Review Branch** administers the review of applications responding to Institute specific solicitations and additional special application types.

#### NIDDK Review Branch Staff:

**Review Branch Chief**  
Francisco O. Calvo, Ph.D.  
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**Review Branch Deputy Chief**  
Michele Barnard, Ph.D.  
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### NIH Center for Scientific Review (CSR)

<http://www.csr.nih.gov>

The **Digestive, Kidney, and Urological Systems Review Group (DKUS IRG)** contains the **Urologic and Kidney Development and Genitourinary Diseases (UKGD) Study Section**. The UKGD serves as the primary study section for review of benign urology clinical and basic research applications directed toward the CSR.

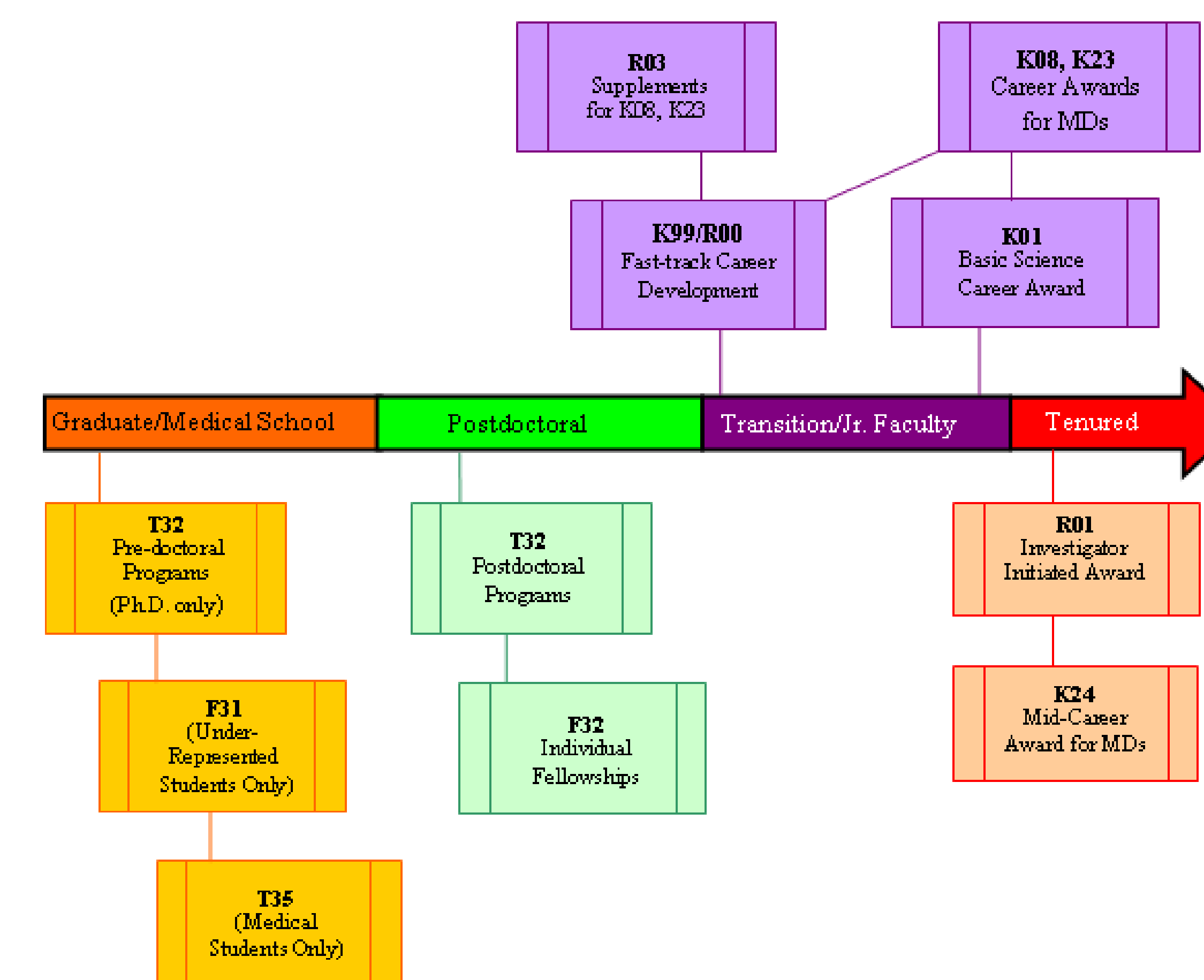
The scientific focus of the UKGD includes the normal and abnormal development of kidney, urinary tract, and the male genital system; as well as cellular, physiologic, and pathophysiologic processes of the bladder, prostate, genitourinary tract, and the pelvic floor.

#### CSR Staff:

**DKUS IRG Chief**  
Mushtaq Khan, Ph.D.  
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**UKGD Scientific Review Officer**  
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### Training & Career Development Timeline



### K99/R00 NIH Pathways to Independence

The NIH has another opportunity for career development. This is an ideal award for exceptional postdoctoral candidates on the fast-track to a productive research career. Applicants must have five-years or fewer of postdoctoral research experience and may not already have an independent faculty position. The first two years of the award, the K99 phase, are intended to be the mentored career-development phase. At the end of the second year, the applicant must have secured an independent tenure-track position to continue the final three years of the award as an R01. Unlike the above career development awards, this opportunity does not require U.S. citizenship or permanent residency status, but the applicant must be able to remain in the U.S. to conduct the full five years of the proposed work. For additional information about this award, see <http://grants2.nih.gov/grants/guide/pa-files/PA-10-063.html>.

### Loan Repayment Program

The purpose of the Extramural Loan Repayment Program is to ease the debt burden clinical scientists may have incurred while attending medical school and a residency program. Competitive applicants must demonstrate their commitment to a research career and have a debt-to-salary ratio of at least 20 percent. The Loan Repayment Program may repay up to a maximum of \$35,000 a year toward each participant's outstanding eligible educational load debt, depending on total eligible repayable debt. For more details about eligibility and to apply online, visit <http://www.lrp.nih.gov>.

## NIDDK Urology Research Highlights

### MAPP Research Network

The NIDDK has established the Multidisciplinary Approach to the Study of Chronic Pelvic Pain (MAPP) Research Network in order to address the fundamental, underlying etiology and natural history of urologic chronic pelvic pain syndromes (UCPPS), including Interstitial Cystitis/Painful Bladder Syndrome (IC/PBS) and Chronic Prostatitis/Chronic Pelvic Pain Syndrome (CP/CPSS). Scientific areas of emphasis include: Patient Clinical Phenotyping, Epidemiology, Neurobiology, and Basic Science. Associations of UCPPS with potential co-morbid conditions is another major area of emphasis. See <http://www.mappnetwork.org/> for more information.

### GUDMAP Genito Urinary Development Molecular Atlas Project (GUDMAP)

GUDMAP is a public database funded by the NIH to provide the scientific and medical community with tools to facilitate research. The key features of this database are: a molecular atlas of gene expression for the developing organs of the GenitoUrinary (GU) tract; a high resolution molecular anatomy that highlights development of the murine GU system; tutorials describing GU organogenesis; and the rapid access to primary data via the GUDMAP database.

### Animal Models of Diabetic Complications Consortium

An interdisciplinary consortium developing new animal models that closely mimic the human complications of diabetes. Current members studying diabetic uropathy include Drs. Firouz Daneshgari, Lori Birder, Matthew Fraser, Aria Olumi and Wade Bushman. A yearly Pilot and Feasibility Program allows access to new investigators with new ideas. Full details at [www.amdcc.org](http://www.amdcc.org)



## NIH Roadmap

<http://nihroadmap.nih.gov/>

### Overview

The NIH, with input from a wide range of relevant communities, formulated the NIH Roadmap for Medical Research. The NIH Roadmap is designed to address the most pressing problems facing medical research. The NIH Roadmap identifies the most compelling opportunities in three main areas:

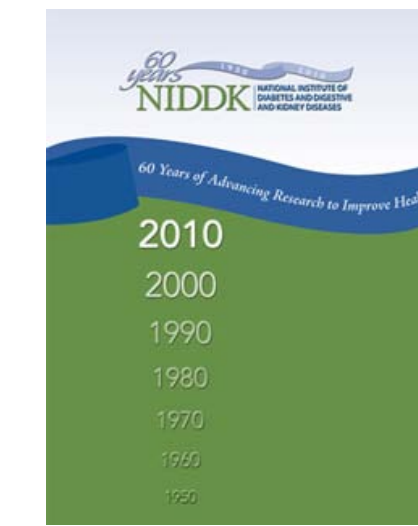
- **New Pathways to Discovery** – Invests in emerging and needed areas of research such as biological pathways and networks, structural biology, molecular libraries and imaging, nanotechnology, bioinformatics, and computational biology.
- **Research Teams of the Future** – Supports both individual creativity and collaborative team efforts by supporting interdisciplinary research, high risk research, and public-private partnerships.
- **Re-engineering the Clinical Research Enterprise** – Assists clinical research through harmonizing regulatory policies, multidisciplinary training, development of new networking and diagnostic tools, and facilitating the establishment of academic homes for clinical and translational research.

These efforts are promoted in large part through published NIH Roadmap funding initiatives. Selected NIH Roadmap Funding opportunities of particular relevance to urology include:

- **Molecular Libraries and Imaging** (<http://nihroadmap.nih.gov/molecularlibraries/>)
- **Human Microbiome Project** (<http://nihroadmap.nih.gov/hmp/>)
- **Interdisciplinary Research** (<http://nihroadmap.nih.gov/interdisciplinary/>)
- **Clinical Research Training** (<http://nihroadmap.nih.gov/clinicalresearch/overview-training.asp>)

For a complete list see: <http://nihroadmap.nih.gov/grants/index.asp>.

### In 2010 The NIDDK Celebrates 60 years of Supporting Research



The compendium, *National Institute of Diabetes and Digestive and Kidney Diseases: 60 Years of Advancing Research to Improve Health*, celebrates the NIDDK's research accomplishments over the past 60 years. To obtain a copy see: <http://www2.nidk.nih.gov/>

## Recommended 2010 AUA Meeting Events

NIDDK 60<sup>th</sup> Anniversary Plenary Session: *60 Years of Progress at the NIDDK: What the Future Holds*; Monday, May 31<sup>st</sup>, 8:30 a.m. – 8:55 a.m.; Moscone Center, Esplanade Ballroom

Course # 0651C: *Grantscraft: Finding Funding and Being Competitive* Tuesday, June 1<sup>st</sup>, 1:00 – 3:00 p.m.; Moscone Center West, Room W-2010

AUA Foundation Research Forum: *Showcasing Young Investigators* Sunday, May 30<sup>th</sup>, 3:00 – 5:30 p.m.; Moscone Center West, Room W-3001

Research Scholar Alumni at the AUA Foundation Booth: Many AUA Foundation scholars have become leaders in urologic disease research. Stop by the AUA Foundation Booth #4016 to meet some of these outstanding individuals.

## NIDDK Biorepository

<http://www.NIDDKrepository.org>

The NIDDK Central Repositories store samples and data from large NIDDK-funded clinical studies. Materials/data are made available to the research community at the end of the study or when an interim phase is completed. There are 3 Central Repositories:

- Biosample Repository – Stores many types of biosamples
- Genetics Repository – Receives bio-samples to isolate DNA, etc.
- Data Repository – Maintains study databases

**Sample and/or data are currently available from various studies, including:**

- ✓ Interstitial Cystitis Clinical Treatment Group (ICCTG)
- ✓ Medical Therapy of Prostatic Symptoms (MTOPS)
- ✓ Boston Area Community Health (BACH) Survey
- ✓ Urinary Incontinence Treatment Network – SISTR (UITN)
- ✓ Interstitial Cystitis Database Study (ICDB)
- ✓ Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications (DCCT/EDIC)

## NIH News!

### IMPORTANT CHANGES TO THE NIH APPLICATION PROCESS

**New Application Page Limits: January 2010 Submissions**  
<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-149.html>

Applications are now **required** to use the newly-restructured application packages and adhere to shorter page limits for most mechanisms.

*Grant applications that were previously allowed 25 pages for the research strategy (R01, Ks) will now be allowed 12 pages; grant mechanisms previously allowed fewer than 25 pages (R21, R03) will now be reduced to 6 pages.*

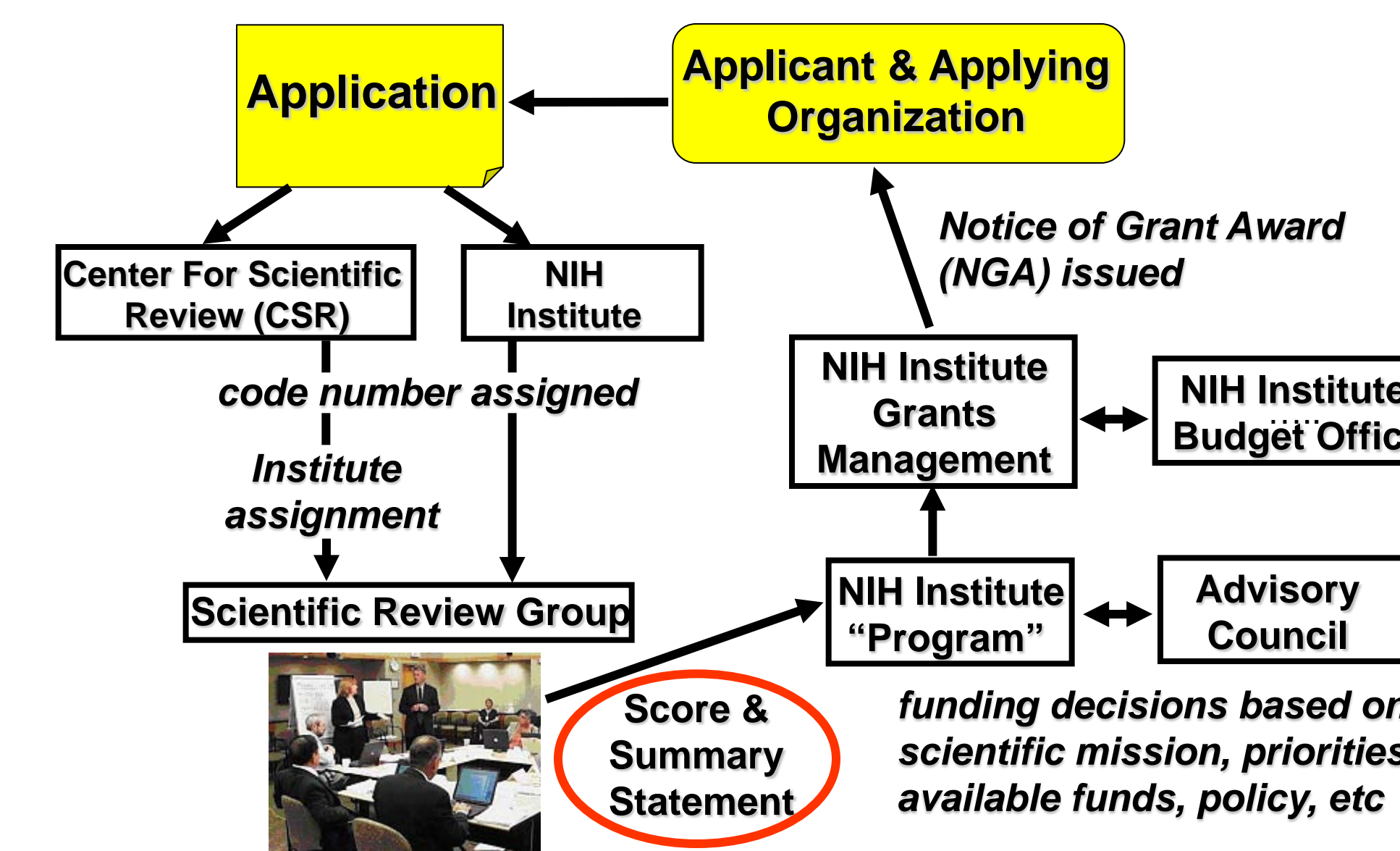
Detailed instructions are available through the Funding Opportunity Announcement. FAQs and additional resources can be found at:

[http://enhancing-peer-review.nih.gov/training\\_communication.html](http://enhancing-peer-review.nih.gov/training_communication.html)

## Grant Basics

### What's happening to my application?

<http://cms.csr.nih.gov/>



### Which type of grant is best for me...?

- R01 – Investigator Research Project (5 yrs; ≥\$250K/yr)
- R21 – Exploratory/Development Grants (\$275K over 2 yrs)
- K – Career Awards (varied)
- F and T – Fellowship and Training Awards (varied)
- R41/R42 – Small Business Technology Transfer (STTR) Program
- R43/R44 – Small Business Innovative Research (SBIR) Program

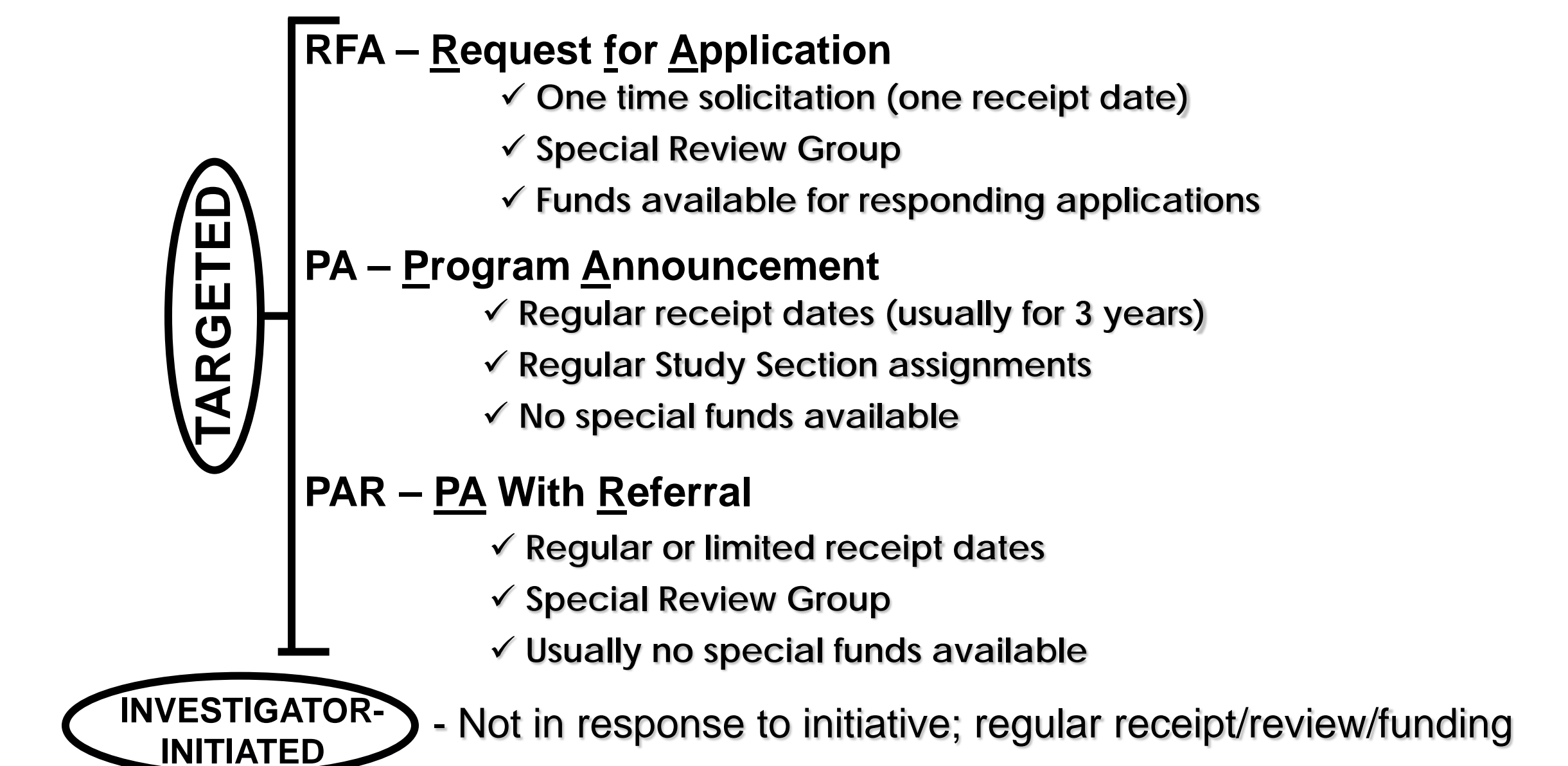
## New PIs

[http://www2.nidk.nih.gov/Funding/Grants/Resources\\_NewInvestigators.htm](http://www2.nidk.nih.gov/Funding/Grants/Resources_NewInvestigators.htm)

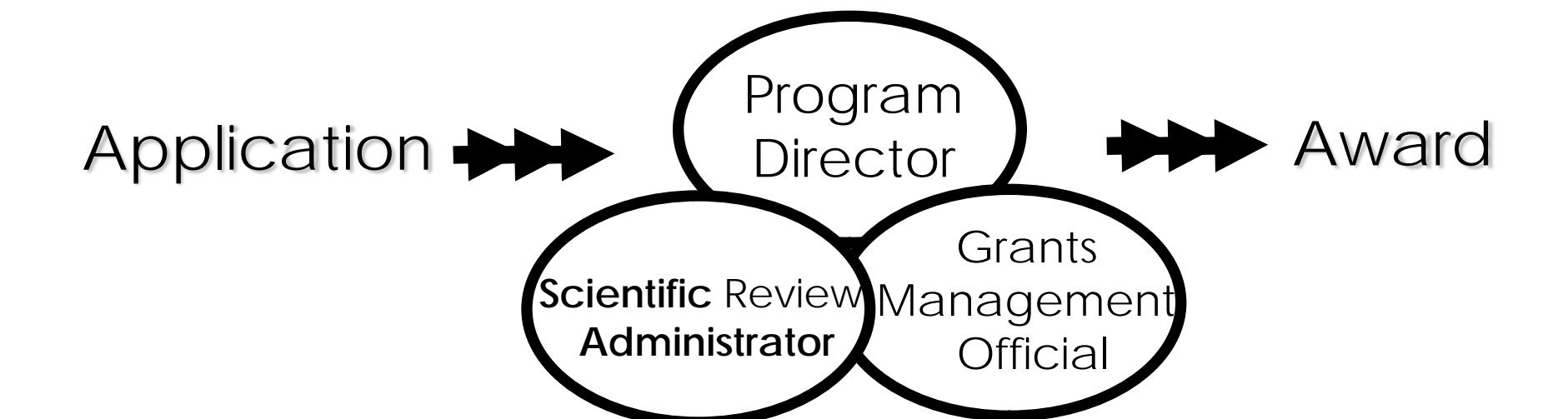
The NIDDK has a strong commitment to the training and research funding of new investigators. Both the NIH and NIDDK have resources to assist new investigators, including:

- **Peer-Review**  
All NIH peer reviewers are instructed to focus more on a proposed approach than a track record for new Principal Investigators (PIs). Additionally, NI/ESI applications are clustered during review to facilitate this focus.
- **Second-Level Review**  
Automatic 2% boost in payline for a full five years of support! In addition, all new-investigator R01 applications that receive a score in initial review receive special consideration by NIDDK staff. In FY2009, DKUH funded more than 30 new investigator R01s
- **NIH High Priority, Short-Term Project Award (R56)**  
During second-level review, new investigators are given special consideration for a small R56 award, which provides modest support for the PI to collect more preliminary data and submit an improved application.
- **Career Development (K) awards, Small grants (R03) awards and Mentoring Workshops** (see adjacent poster).

### What about a "Funding Initiative"...??



### Identify/Contact appropriate NIH staff



## Workshops

*NIDDK New Investigator Workshop*– November 10-11, 2010, Bethesda, MD

*NIDDK K Awardee Workshop*—April 2011, Bethesda, MD

*Stem Cells in Repair, Regeneration and Tissue Engineering* – Winter 2010-11. Washington DC area.

## Small Business

### Why Seek SBIR/STTR Funds?

- Over \$1 billion are available across NIH
- They provide seed money for high-risk projects
- They promote and foster partnerships with collaborators - including academia.
- Intellectual property rights are normally retained by small business
- Funds are NOT A LOAN - no repayment!
- Large corporations look to small companies for initial development

### Small Business Innovation Research (SBIR)

<http://www.zyn.com/sbir>  
<http://grants.nih.gov/grants/oeer.htm>

- The SBIR program supports innovative research conducted by small businesses to develop products for commercialization. The PI must be employed by the small business, but a research institution may be involved.

### Small Business Technology Transfer (STTR)

<http://www.zyn.com/sbir>  
<http://grants.nih.gov/grants/oeer.htm>

- The STTR program supports innovative research for products that have the potential for commercialization. STTR projects must be conducted cooperatively by a small business and a research institution.