Evaluating Pa<u>n</u>el <u>Qu</u>ality <u>in</u> <u>Re</u>view (ENQUIRE)
An Evaluation Framework for CSR Study Sections

Cluster 3: Brain Disorders – Clinical, Translational, and Neurotechnology

Study Section	Title	Avg Apps/Round
NPAS	Neural Basis of Psychopathology, Addictions, and Sleep Disorders	95
ANIE	Acute Neural Injury and Epilepsy	93
EITN	Emerging Imaging Technologies in Neuroscience	91
CNN	Clinical Neuroscience and Neurodegeneration	86
BDCN 55	Understanding Alzheimer's Disease	85
DBD	Developmental Brain Disorders	84
ETTN 81 (BIVT)	Vision Imaging, Bioengineering, and Low Vision Technology Development	82
CPDD	Child Psychopathology and Developmental Disabilities	81
CNBT	Clinical Neuroimmunology and Brain Tumors	80
APDA	Adult Psychopathology and Disorders of Aging	73
ASG	Aging Systems and Geriatric Study Section	73
BNVT	Bioengineering of Neuroscience, Vision Technologies	71
ETTN 91	Noninvasive Neuromodulation and Neuroimaging Technologies	38

External Working Group Roster: ENQUIRE Cluster 3

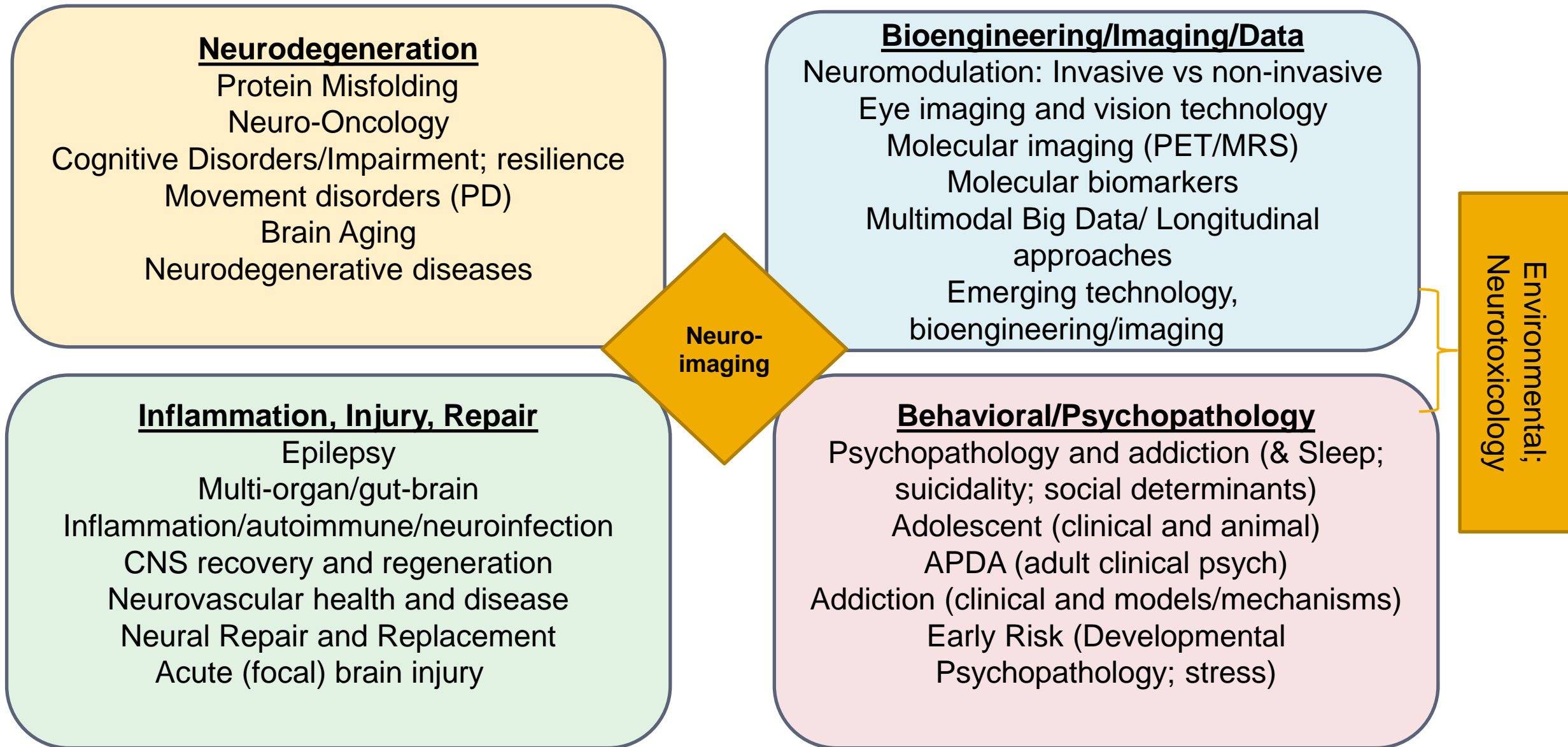|		
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External Panel Charge

Start with a clean slate and design ~14 study sections that will optimally review the areas represented by the current panels.

Goal - Recommend a set of study sections that reflect the current and emerging state of field and support the identification of high impact science.

- Sufficient breadth for scientific competition
- Desirable to have some built-in scientific overlap among study sections

Working Conceptual Framework

Neurodegeneration
Protein Misfolding
Neuro-Oncology
Cognitive Disorders/Impairment; resilience
Movement disorders (PD)
Brain Aging
Neurodegenerative diseases

Bioengineering/Imaging/Data
Neuromodulation: Invasive vs non-invasive
Eye imaging and vision technology
Molecular imaging (PET/MRS)
Molecular biomarkers
Multimodal Big Data/ Longitudinal approaches
Emerging technology, bioengineering/imaging

Neuro-imaging

Environmental; Neurotoxicology

Inflammation, Injury, Repair
Epilepsy
Multi-organ/gut-brain
Inflammation/autoimmune/neuroinfection
CNS recovery and regeneration
Neurovascular health and disease
Neural Repair and Replacement
Acute (focal) brain injury

Behavioral/Psychopathology
Psychopathology and addiction (& Sleep; suicidality; social determinants)
Adolescent (clinical and animal)
APDA (adult clinical psych)
Addiction (clinical and models/mechanisms)
Early Risk (Developmental Psychopathology; stress)

Key Discussion Points

- Integrate environmental risk factors and neurotoxicology concepts across study sections in clusters 3 (Bio-engineering and Imaging) and 4 (Behavioral/Psychopathology), and dispersed neuroimaging concepts across study sections in all 4 clusters.

- Integrate big data (e.g., consortium science and large datasets), neuromodulation, and neurogenetics across the relevant proposed study sections.

- Create specific study section focused on neuro-oncology.

- Disperse neurogenetics and neuromodulation among other relevant study sections which can adequately house these topics (GWAS studies of addiction, schizophrenia, etc.).

Conceptual Framework - New Study Section Structure

Neurodegeneration

Aging Systems and Geriatrics (ASG)
Developmental Neuroscience and Pathophysiology (DNPS)
Clinical Neurodegeneration Translational Neuroscience (CNTN)

Bioengineering and Imaging

Bioengineering for Neuroscience and Vision (BNV)
Imaging Technology for Neuroscience and Vision (ITNV)
Neuromodulation of Neuronal Circuits (NCC)

Inflammation, Injury, Repair

Acute Brain Injury and Neurovascular Disorders (ABIN)
Epilepsy and Disorders Involving Electrical Circuitry (EDEC)
Neuro-regeneration, Repair, and Recovery (NRRR)
Inflammation, Infection, and Autoimmunity of the Nervous System (IIAN)
Neuro-Oncology (NEURO)

Behavioral/Psychopathology

Adult Lifespan Psychopathology (ALP)
Cognitive Disorders and Brain Aging (CDBA)
Child and Adolescent Psychopathology and Developmental Disabilities (CAPD)
Neural Basis of Psychopathology, Addictions, and Sleep Disorders (NPAS)

Refreshed Study Sections

Old

ASG	Aging Systems and Geriatrics
DBD	Developmental Brain Disorders
CNN	Clinical Neuroscience and Neurodegeneration
CPDD	Child Psychopathology and Developmental Disabilities
NPAS	Neural Basis of Psychopathology, Addictions, and Sleep Disorders

New

ASG	Aging Systems and Geriatrics
DNPS	Developmental Neuroscience and Pathophysiology
CNTN	Clinical Neurodegeneration Translational Neuroscience
CAPD	Child and Adolescent Psychopathology and Development Disabilities
NPAS	Neural Basis of Psychopathology, Addictions, and Sleep Disorders

What Changed?

Added environmental/lifestyle; genetic/ behavioral/ pharmacological interventions mitigating age-related comorbidities

Added developmental epilepsy; environmental exposures; computational and large datasets

Added large scale data sets, multimodal; added environmental risk factors and genomic/epigenetic studies; intervention studies

Broadened to cover early development through early adulthood; environmental exposures; computational and large datasets
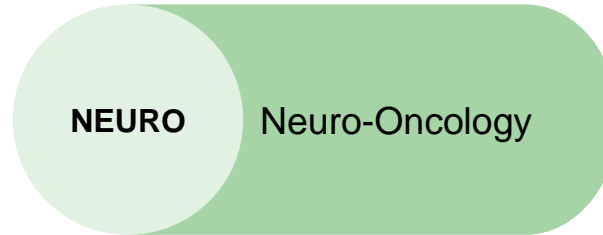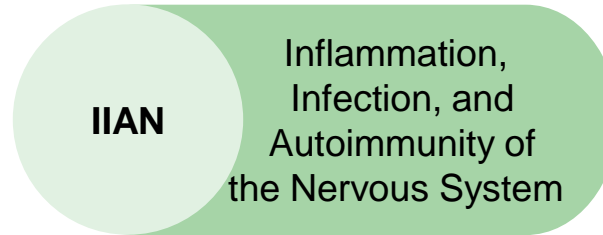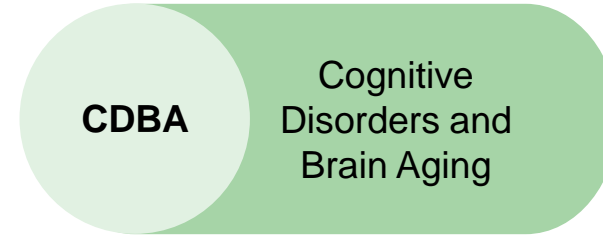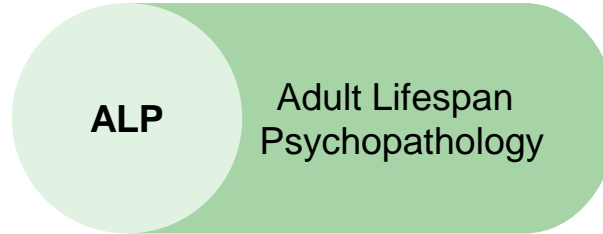
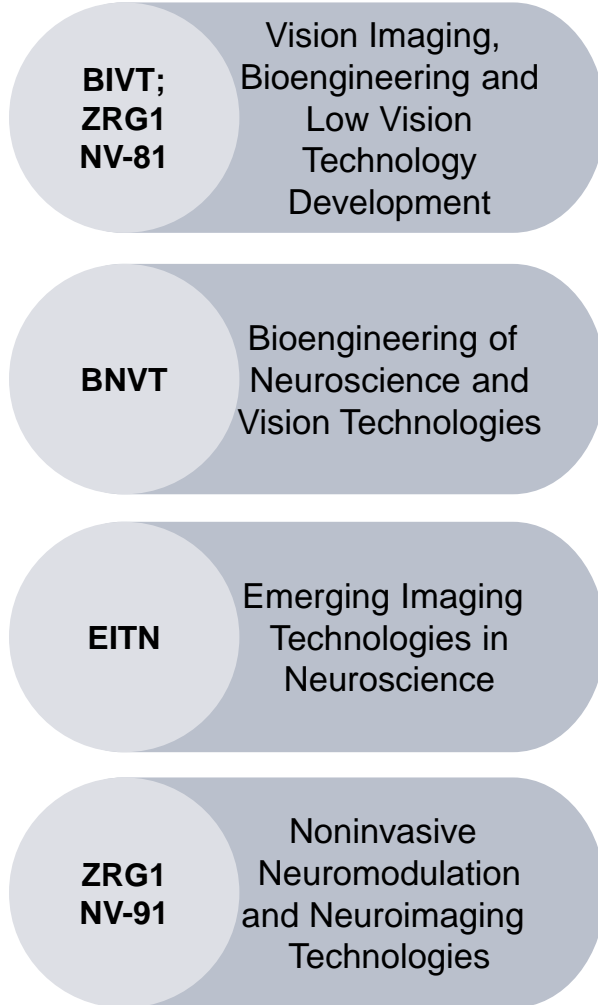Added computational and large datasets

Redesigned Study Sections
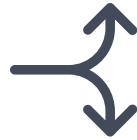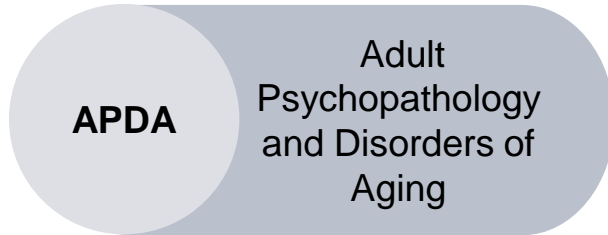
Redesigned Study Sections, con't

Old

New

What Changed?

BIVT; ZRG1 NV-81 — Vision Imaging, Bioengineering and Low Vision Technology Development

BNVT — Bioengineering of Neuroscience and Vision Technologies

EITN — Emerging Imaging Technologies in Neuroscience

ZRG1 NV-91 — Noninvasive Neuromodulation and Neuroimaging Technologies

BNV — Bioengineering for Neuroscience and Vision

ITNV — Imaging Technology for Neuroscience and Vision

NNC — Neuromodulation of Neuronal Circuits
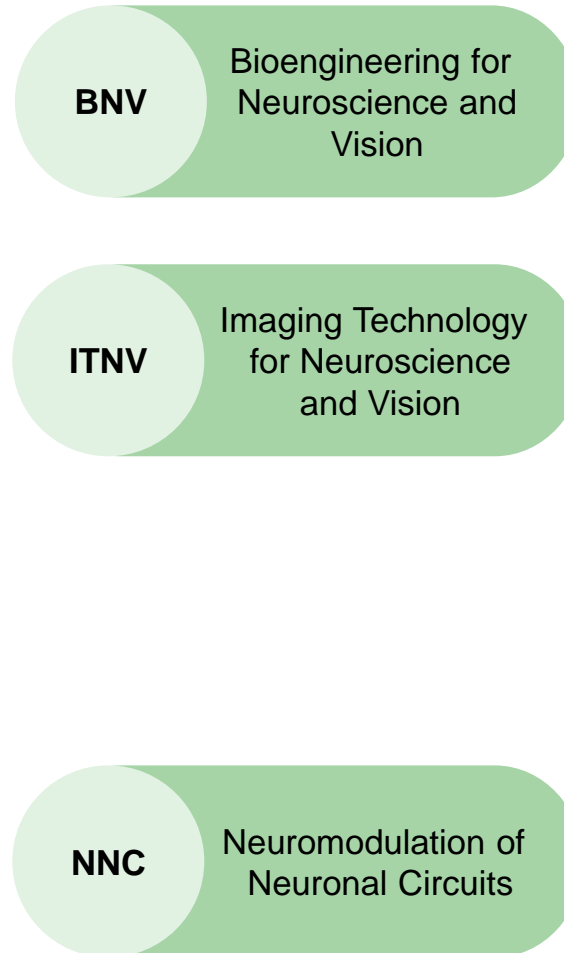
Moved vision technology here and most of BNVT

Moved imaging technology here

Moved noninvasive neuromodulation here

Redesigned Study Sections, con't

Old · **New** · **What Changed?**

ANIE — Acute Neural Injury and Epilepsy

ABIN — Acute Brain Injury and Neurovascular Disorders
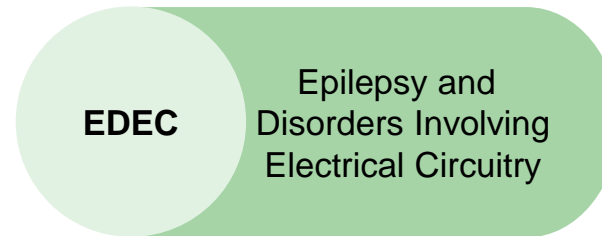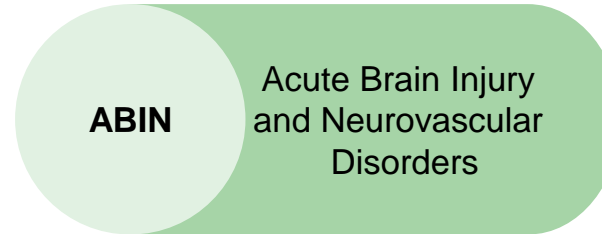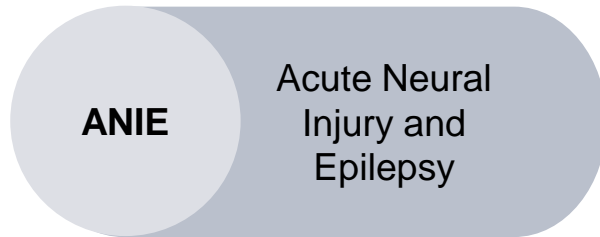
Pulled brain injury from ANIE

EDEC — Epilepsy and Disorders Involving Electrical Circuitry

Epilepsy and expanded to include seizure disorders and nervous system electrophysiology

NRRR — Neuro-regeneration, Repair, and Recovery

Focused on repair of brain injury and neuro-redegeneration

Internal Workgroup Panel Deliberations

- Liked the emphasis on data, environment, neuroimaging
- Emphasized the importance of health disparities research and research on and by diverse populations

Key caveats:

- Accommodate the growing field of Alzheimer's disease?
- Ensure sufficient clinical trials expertise on the panels
- Fine-tune study section descriptions - contradictory statements/broad overlaps.

Study section process assessment data: No major concerns

- Reviewer and PO survey results looked good.
- Monitor study sections for breadth (too broad or narrow)

ENQUIRE 3 Summary

Created 15 new study sections from 13 (10 standing and 3 recurring SEPs)

- Refreshed 5 study sections (minor changes to existing panels)
- Created 9 new – somewhat reformulated - study sections
- Created a new neuro-oncology study section
- Incorporated data science, imaging, and environmental risk factors across most study sections
- Oversubscribed/undersubscribed?

Internal Panel agreement with the general structure of the new study section

CSR Advisory Council Discussion

Questions or Comments?

Council Concurrence?

Final Proposed Study Sections

- Aging Systems and Geriatrics (ASG)
- Cognitive Disorders & Brain Aging (CDBA)
- Clinical Neurodegeneration Translational Neuroscience (CNTN) [old CNN]
- Neuro-oncology (NEURO)
- Imaging Technology for Neuroscience and Vision (ITNV)
- Bioengineering for Neuroscience and Vision (BNV)
- Neuromodulation of Neuronal Circuits (NNC)
- Inflammation, Infection, and Autoimmunity of the Nervous System (IIAN)
- Acute Brain Injury and Neurovascular Disorders (ABIN)
- Epilepsy and Disorders involving Electrical Circuitry (EDEC)
- Neuro-regeneration, Repair, and Recovery (NRRR)
- Child and Adolescent Psychopathology and Developmental Disabilities Study (CAPD)
- Developmental Neuroscience and Pathophysiology Study Section (DNPS)
- Neural Basis of Psychopathology, Addictions, and Sleep Disorders (NPAS)
- Adult Lifespan Psychopathology Study Section (ALP)

Summary of Recommendations

- From 10 standing study sections and 3 recurring SEPs to 15 standing study sections

- Integrate environmental factors, big data, and neuroimaging across study sections as relevant

- Slightly refine scope of the Aging Systems and Disorders of Aging (ASG), Clinical Neuroscience and Neurodegeneration (CNN), Developmental Brain Disorders (DBD), Child Psychopathology and Developmental Disabilities (CPDD), and Neural Basis of Psychopathology, Addictions, and Sleep Disorders (NPAS) study sections

- Disband the Acute Neural Injury and Epilepsy (ANIE) study section and distribute topics across three new study sections; Acute Brain Injury and Neurovascular Disorders (ABIN), Epilepsy and Disorders Involving Electrical Circuitry (EDEC), Neuro-regeneration, Repair, and Recovery (NRRR)

- Disband the Adult Psychopathology and Disorders of Aging (APDA) and distribute topics across two new study sections: Adult Lifespan Psychopathology (ALP) and Cognitive Disorders and Brain Aging (CDBA)

- Disband the Clinical Neuroimmunology and Brain Tumors (CNBT) study section and distribute topics across two new study sections: Inflammation, Infection, and Autoimmunity of the Nervous System (IIAN) and Neuro-Oncology (NEURO)

- Disband the Bioengineering of Neuroscience and Vision Technologies (BNVT) and distribute to two new study sections: Imaging Technology for Neuroscience and Vision (ITNV) and Bioengineering for Neuroscience and Vision (BNV)

- Disband Emerging Imaging Technologies in Neuroscience (EITN) and distribute to two new study sections: Imaging Technology for Neuroscience and Vision (ITNV) and Neuro-regeneration, Repair, and Recovery (NRRR)

- Pulled applications from recurring Vision Imaging, Bioengineering, and Low Vision Technology Development SEP (BIVT) and BNVT to form new study section: Neuromodulation of Neuronal Circuits (NCC)