Themes for priority setting conferences

Recovery and Rehabilitation Group

MUSC Medical University of South Carolina

NIH

UNIVERSITY OF Cincinnati

Complexities of stroke recovery/rehabilitation research

(1) Some positive trials (EXCITE, L-Dopa, FLAME, TR, VNS)

(2) Many treatment targets, many endpoints

(3) Multidisciplinary teams, in patient care and in clinical research

(4) Patients are scattered to the 4 winds

The StrokeNet Recovery & Rehabilitation Group

Steve Cramer (Chair)	MD	UCLA
Steve Wolf (Co-Chair)	PhD, PT	Emory University
Oluwole Awosika	MD	University of Cincinnati
Jonathan Beall	PhD	MUSC
Amy Boos	MSBME, OTR/L	University of Pittsburgh
Michael Borich	DPT, PhD	Emory University
Devin Brown	MD	University of Michigan
Cassandra Cardenas	MS	UC Irvine
Patricia Coker-Bolt	PhD, OTR/L	MUSC
Daofen Chen	PhD	NINDS
Mary Carter Denny	MD	Medstar Health
Jordan Elm	PhD	MUSC
Wayne Feng	MD	Duke University
Cathra Halabi	MD	UCSF
Scott Janis	PhD	NINDS
Lorelei Phillip Johnson	PhD	Atrium Health
Pooja Khatri	MD	University of Cincinnati
Cassandra List	MD	Brooks Rehabilitation
Jenny Majersik	MD	University of Utah
Sue Marden	PhD, RN	NICHD
Caitlyn Meinzer	PhD	MUSC
Eva Mistry	MD	University of Cincinnati
Susan Murphy	BS	Emory University
Michael Obel-Omia	MA	Patient representative
Ela Plow	PhD	Cleveland Clinic
Vivek Prabhakaran	MD, PhD	University of Wisconsin
Jessica Richardson	Ph.D., CCC-SLP	University of New Mexico
Kelly Sloane	MD	University of Pennsylvania
Peter Turkeltaub	MD, PhD	Georgetown University
George Wittenberg	MD, PhD	University of Pittsburgh

NIH StrokeNet
PREVENTION | TREATMENT | RECOVERY

There were 90 votes across 18 people

Level	Count
AFB	4
CC	3
CH	5
CML	5
EP	5
GFW	12
JDR	7
KLS	3
LB	5
LPJ	5
MCD	5
OA	5
PCB	6
PET	6
SCC	3
SLW	5
SM	2
VP	4
Total	90

Therapy or biomarker idea	Your initials	# votes
Very very very high doses of rehab therapy	SCC, SM, PCB, AFB, SLW, PET, EP, CH, CML	9
Combining intensive therapies with neuromodulation (i.e. taVNS, TMS, including pharmacological interventions)	PCB, SLW, JDR, OA, CH, LB, GFW, LPJ	8
Rehabilitation models for clients in rural settings or geographically remote areas and other marginalized groups	PCB, JDR, KLS, PET, CC, LB, MCD, LPJ	8
Technology based interventions; long-term effects, sustainability	PCB, SLW, KLS, PET, OA, GFW, MCD, VP	8
Participation focused interventions in stroke rehabilitation	PCB, SLW, JDR, PET, EP, CC, LPJ	7
Artificial Intelligence based stroke rehabilitation	VP, SM, PCB, AFB, SCC, GFW	6
Broadening access to interventional trials for patients with communication/language or cognitive impairments	CH, LB, JDR, CML, MCD, LPJ	6
Partner/community training for interventions, maintenance, accessible communities	JDR, KLS, CC, MCD	4
Customization of Rehabilitation–less one size fits all approach	OA, EP, JDR, LB	4
Understanding priorities of patients with stroke (from Ranking of Importance on Stroke Topics)	EP, LB, GFW, MCD	4
Invasive procedures (ex: spinal cord stimulation, tendon release) combined with functional training	AFB, CH, GFW	3
Developing sensitive and reliable measures to assess clinically meaningful outcomes	PET, JDR, GFW	3
Recruitment & Retention of Next Generation of Trialists in Stroke Recovery/Rehabilitation (from Ranking of Importance on Stroke Topics)	EP, GFW, LPJ	3
Gut Brain Axis and Brain Health Research	OA, VP	2
Biometric monitors and other technologies for ecologically valid, accessible, and rich outcome measurement	PET, GFW	2
Accurate assessments/pathways/resources for successful return to work after stroke	CML, GFW	2
Accurate assessments/pathways/resources for successful return to driving after stroke	CML, GFW	2
Advanced Connectome Stroke MR Imaging	VP, GFW	2
Aerobic and strength training exercise	AFB, CH	2
Mesenchymal stromal cell therapy	SCC	1
Duration of “intense” rehabilitation	CML	1
Machine based learning including data transmission from home environment	SLW	1
Pre-enrollment conditioning for intervention trials to better delineate true effects	OA	1
Biomarkers (-omics) in rehabilitation	GFW	1

- Very very very high doses of rehab therapy
- Combining intensive therapies with neuromodulation (i.e., taVNS, TMS, and pharmacological interventions)
- Rehabilitation models for clients in rural settings or geographically remote areas and other marginalized groups
- Technology-based interventions; long-term effects, sustainability

NIH StrokeNet
PREVENTION | TREATMENT | RECOVERY

Why it's timely: Increased momentum in recovery/rehab therapeutics

Challenges in bridging the gap between evidence and changing practice: mounting evidence, weak translation to clinical practice

Opportunities for pragmatic and decentralized approaches: needed, but complex given variability in clinical practice

Challenges related to geographic and socioeconomic disparities: wide geographic variation in rehab practice, high impact of socioeconomic factors

Types of stakeholders needed: numerous, e.g., patients, OT, PT, SLP, RN, MD, neuropsych, hospital CEOs, industry, etc

- Very very very high doses of rehab therapy
- Combining intensive therapies with neuromodulation (i.e., taVNS, TMS, and pharmacological interventions)
- Rehabilitation models for clients in rural settings or geographically remote areas and other marginalized groups
- Technology-based interventions; long-term effects, sustainability