

UAB Comprehensive Neuroscience Center

# Annual Retreat 2023 Program



September 13-14, 2023  
The Valley Hotel- Homewood, AL



COMPREHENSIVE NEUROSCIENCE CENTER

The University of Alabama at Birmingham

# UAB Comprehensive Neuroscience Center

## Mission

The overall mission of the CNC is to promote and support interdisciplinary neuroscience research, clinical care and education at UAB.

## Leadership

Jeremy Day, Ph.D.

Director  
Associate Professor  
Department of Neurobiology  
UAB Heersink School of Medicine

Karen Gamble, Ph.D.

Associate Director for Research  
Professor  
Department of Psychiatry  
UAB Heersink School of Medicine

Lawrence Sincich, Ph.D.

Associate Director for Grants in Preparation (GRiP)  
Professor  
Department of Optometry & Vision Science  
School of Optometry

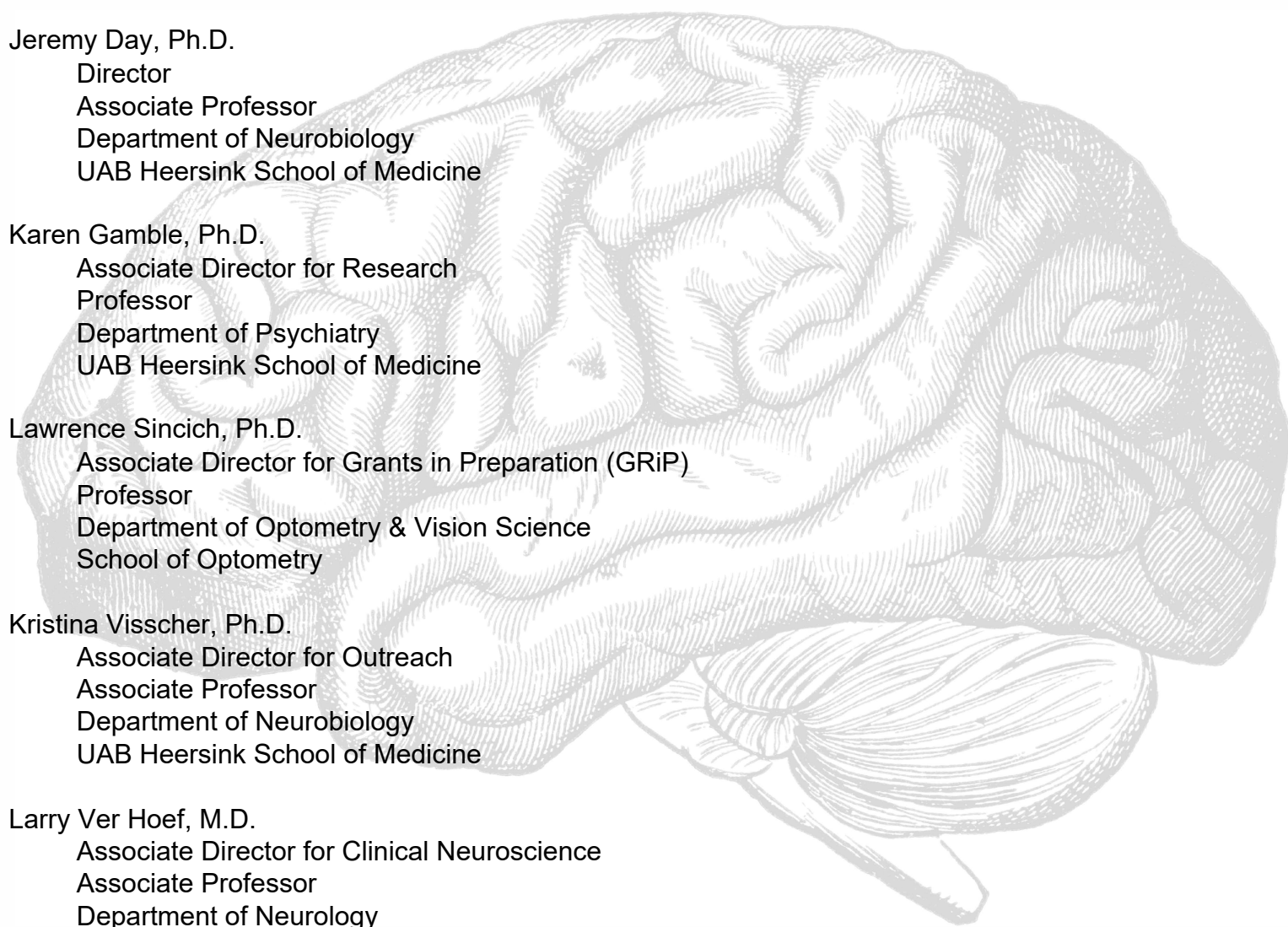
Kristina Visscher, Ph.D.

Associate Director for Outreach  
Associate Professor  
Department of Neurobiology  
UAB Heersink School of Medicine

Larry Ver Hoef, M.D.

Associate Director for Clinical Neuroscience  
Associate Professor  
Department of Neurology  
UAB Heersink School of Medicine

Audrey Coachman, MHA  
Program Manager I



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# Wednesday, September 13, 2023

**9 A.M.- 10 A.M.** Registration

**10:00- 10:20 A.M.** Welcome & Announcements

**10: 20 A.M.- 11 A.M.** State of the CNC Address

Jeremy Day, Ph.D.  
Director, Comprehensive Neuroscience Center  
Michael J. Friedlander Heersink Endowed Professorship  
Associate Professor, Department of Neurobiology  
UAB Heersink School of Medicine

**11 A.M.- Noon** Keynote Speaker I      Moderator: Dr. Lawrence Sincich

“Acetylcholine as a neuromodulator: role in affective behaviors”

Marina Picciotto, Ph.D.  
Charles B.G. Murphy Professor in Psychiatry and Deputy Chair for Basic Science Research  
Director of the Division of Molecular Psychiatry  
Professor, Neuroscience, Pharmacology and the Child Study Center  
Deputy Director of the Kavli Institute for Neuroscience  
Yale University

**Noon- 1 P.M.** Lunch

**1 P.M.- 2:30 P.M.** New Faculty Session I      Moderator: Dr. Larry VerHoef

“Synaptic plasticity mechanisms of chronic pain”

Lingyong Li, Ph.D.  
Associate Professor  
Department of Anesthesiology & Perioperative Medicine

“Stimulation-evoked networks in the epileptic brain”

Rachel June Smith, Ph.D.  
Assistant Professor  
Department of Electrical and Computer Engineering, NeuroEngineering

“Neuroimaging approaches to diagnosing Parkinson’s disease – Opportunities and Challenges.”

Virendra Mishra, Ph.D.  
Associate Professor  
Department of Radiology

**2:30 P.M. – 2:40 P.M.** Break



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# Wednesday, September 13, 2023

**2:40 P.M - 4:20 P.M.** Trainee Session      Moderator: Dr. Jeremy Day

*Presenters TBD*

**4:20 P.M.- 4:30 P.M.** Break

**4:30 P.M.- 6 P.M.** Poster Session & Cash Bar

**6 P.M.- 7 P.M.** Reception Dinner & Evening Activity



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# Thursday, September 14, 2023

## 8 A.M. Breakfast

**8:30 A.M.- 10:15 A.M.** New Faculty Session II      Moderator: Dr. Karen Gamble

"Sex-specific nicotinic receptor regulation of dopamine release mechanisms underlying substance use disorder"

Lillian Brady, Ph.D.  
Assistant Professor  
Department of Psychiatry & Behavioral Neurobiology

"Dissociable encoding of motivated behavior by parallel thalamo-striatal projections"

Sofia Beas, Ph.D.  
Assistant Professor  
Department of Neurobiology

"Neural control of disconjugate eye movements in non-human primates"

Julie Quinet, Ph. D.  
Assistant Professor  
Department of Optometry and Vision Science

**10:15 A.M.-10:30 A.M.** Break

**10:30 A.M. -Noon** New Faculty Session III      Moderator: Dr. Kristina Visscher

"Metabolism as an intermediary between the gut microbiome and central nervous system"

Abbi Hernandez, Ph.D.  
Postdoctoral Trainee  
Department of Medicine: Division of Gerontology, Geriatrics, and Palliative Care

"Civitan Autism and Neurodevelopmental Research Core: Supports for Translational Research"

Cassandra Newsom, PsyD  
Associate Professor  
Department of Neurobiology

"THRIVE: A Recovery-focused, Brief, Psychological Intervention for Suicide Risk"

Jennifer Lockman, Ph.D.  
Assistant Professor  
Department of Department of Psychiatry and Behavioral Neurobiology

**Noon- 1 P.M.** Lunch



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# Thursday, September 14, 2023

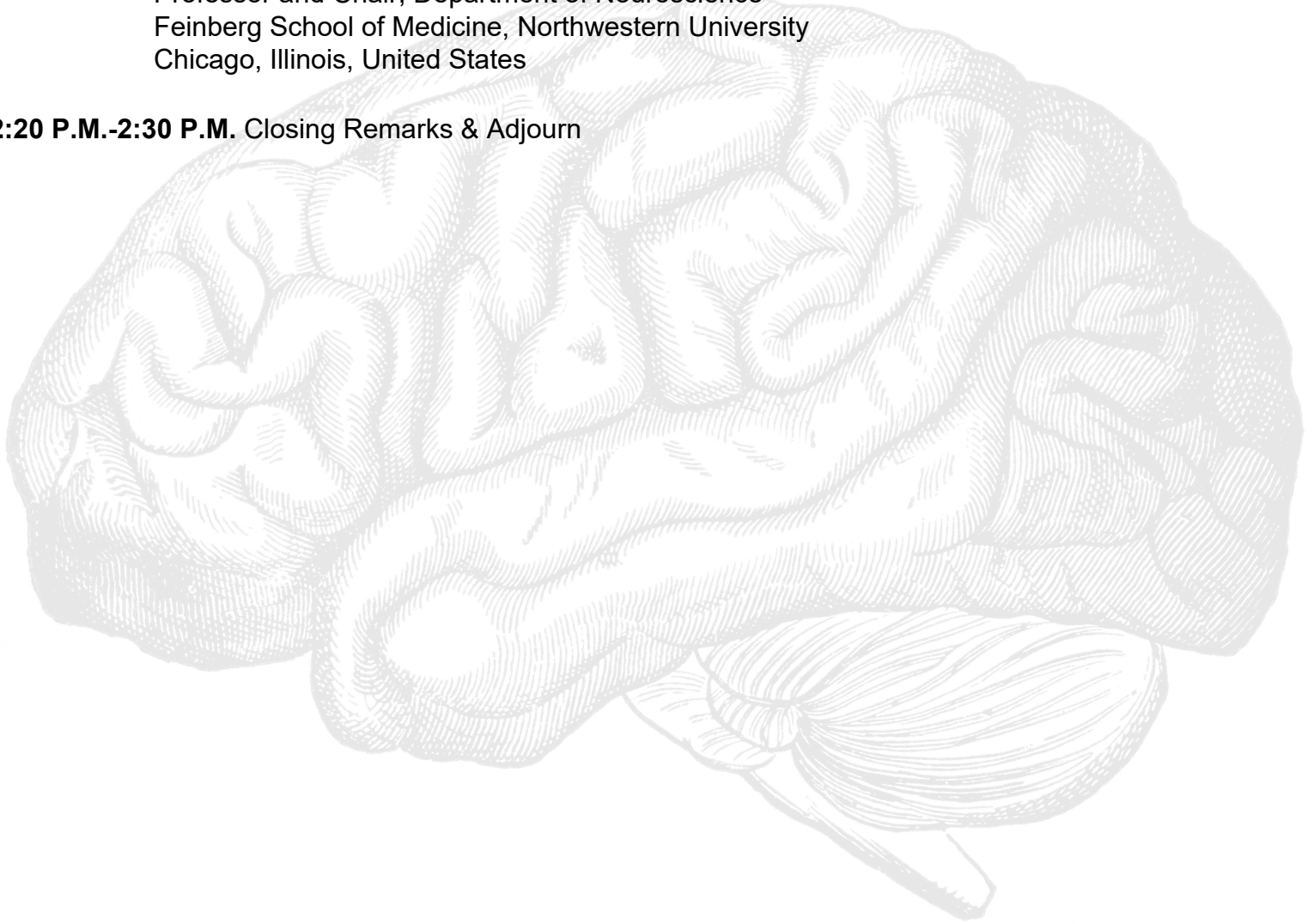
**1 P.M.** Announcement of Awards

**1:15 P.M.- 2:15 P.M.-** Keynote Speaker II      Moderator: Dr. Jeremy Day

“Network determinants of progressive motor disability in Parkinson’s disease.”

D. James Surmeier, Ph.D.  
Professor and Chair, Department of Neuroscience  
Feinberg School of Medicine, Northwestern University  
Chicago, Illinois, United States

**2:20 P.M.-2:30 P.M.** Closing Remarks & Adjourn



**Thank you for attending the 2023 CNC Retreat!**  
**A post event survey will be sent via email for feedback.**



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# Keynote Speakers

## **Marina Picciotto, Ph.D.**

Marina Picciotto is the Charles B.G. Murphy Professor in Psychiatry, Deputy Chair for Basic Science Research and Director of the Division of Molecular Psychiatry at Yale University. She is also professor in the departments of Neuroscience, Pharmacology and the Child Study Center and Deputy Director of the Kavli Institute for Neuroscience at Yale. She received her PhD from The Rockefeller University in the laboratory of Dr. Paul Greengard and did her postdoctoral work at the Institut Pasteur with Dr. Jean-Pierre Changeux. Dr. Picciotto's research focuses on the role of acetylcholine and its receptors in cellular processes and circuits relevant to complex behaviors and psychiatric illness.

Dr. Picciotto was Editor-in-Chief of the Journal of Neuroscience from 2015-2022, and is the incoming President-Elect of the Society for Neuroscience. Dr. Picciotto is a member of the National Academy of Medicine and a Fellow of the American Association of the Advancement of Science.



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## **D. James Surmeier, Ph.D.**

D. James Surmeier is a Nathan Smith Davis Professor and Chair of the Department of Neuroscience at the Feinberg School of Medicine at Northwestern University.

Dr. Surmeier received his Ph.D., in Physiology and Biophysics from the University of Washington. He trained with leaders in the field of neurophysiology, including Dr. Arnold Towe, Dr. William Willis and Dr. Stephen Kitai. He assumed his current position as Chair of the Department of Physiology (renamed 09/01/21, to Neuroscience) at Northwestern University in 2001. Using an array of cutting-edge approaches, Dr. Surmeier's research program focuses physiological determinants of Parkinson's and Huntington's diseases. His work has uncovered basic mechanisms underlying neural activity in the basal ganglia and how it is perturbed in these disease states. His work has identified the molecular determinants of network dysfunction in both diseases, paving the way for novel pharmacological and genetic therapies. His pursuit of the mechanisms underlying selective neuronal vulnerability in Parkinson's disease has led to the identification of activity-dependent calcium entry through Cav1 Ca<sup>2+</sup> channels as a primary trigger for mitochondrial oxidant stress in at-risk neurons, providing a potential explanation for the selective vulnerability of substantia nigra dopaminergic neurons—neurons whose loss underlies the cardinal motor symptoms of Parkinson's disease. Corroborated by epidemiological studies, this discovery study has led to a major Phase III clinical trial in North America to determine the ability of the dihydropyridine isradipine to slow the progression of early stage Parkinson's disease.



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# Presentation Awards

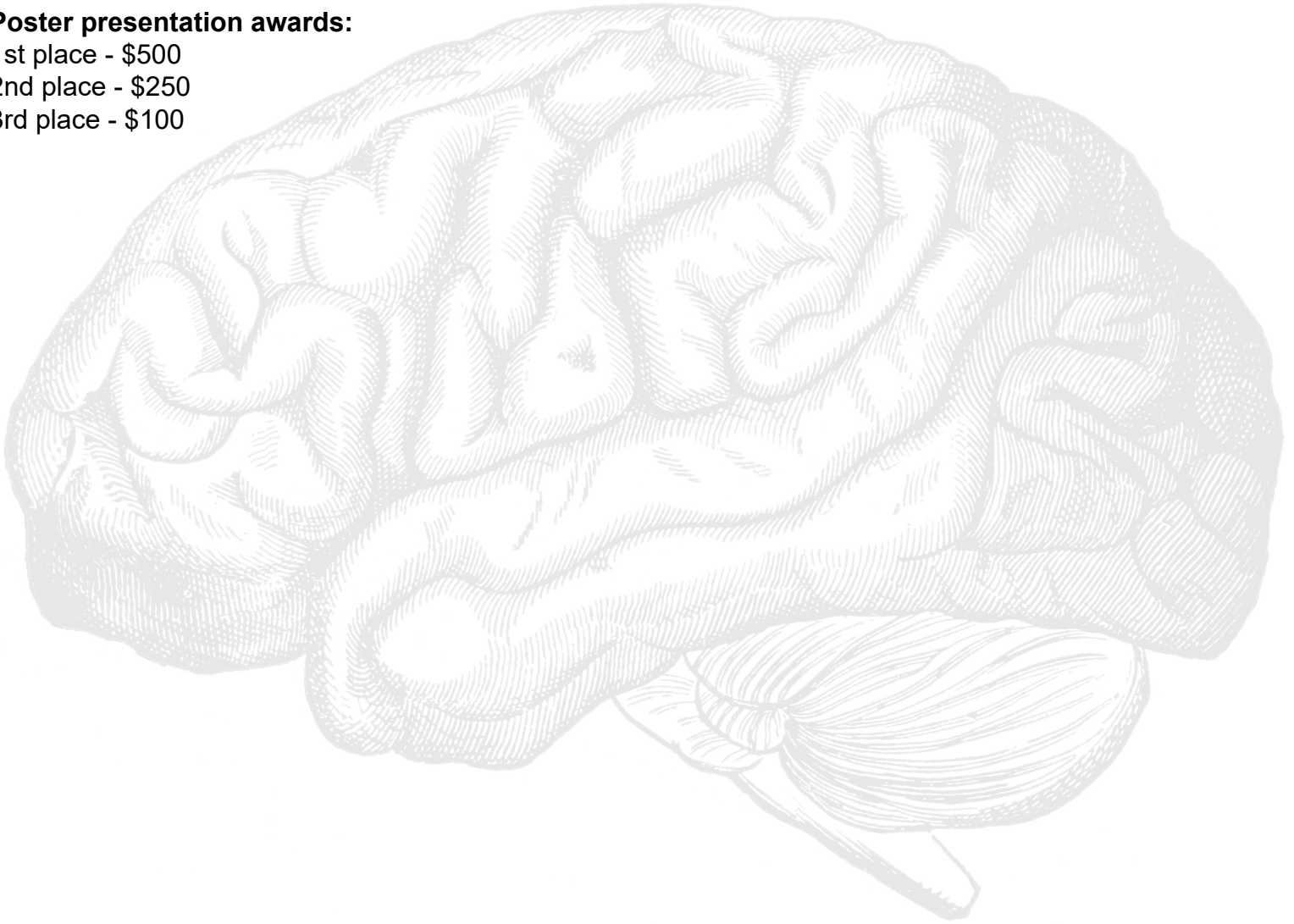
Trainee platform presentations will be selected from the submitted abstracts by a panel of judges. Awards will be given for both platform and poster presentations.

**Platform (oral) presentation awards:**

- 1st place - \$500
- 2nd place - \$250
- 3rd place - \$100

**Poster presentation awards:**

- 1st place - \$500
- 2nd place - \$250
- 3rd place - \$100



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# Location

## Valley Hotel

2727 18th Street South  
Homewood, AL 35209

Website: <https://www.valleyhotelbirmingham.com/>



### **Directions**

Traveling South on I-65:

Take exit 261B on the left to merge onto I-20E / I-59N toward Atlanta/Gadsden.

Take exit 126A to merge onto US-280 E / US-31 S. Keep left to continue US-31 S/Montgomery Pkwy. Turn right onto 28th Avenue S. Turn right onto 18th Street S.

Traveling North on I-65:

Travel North on I-65 toward Birmingham. Take exit 252 for US-31/Montgomery Hwy. Turn right onto US-31/Montgomery Hwy. Continue straight onto Independence Drive/Montgomery Pkwy. Turn left onto 28th Avenue S. Turn right onto 18th Street S.

### **Parking**

The Valley Hotel offers convenient on-site parking in the parking lot located on the East side of the hotel. Street parking is also available.



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