GARRY GUMASING
PT, CFPS, CSRT, LSVT BIG

Certified Therapy Director St. Anthony Rehabilitation and Nursing Center

- Garry has worked as a physical therapist for 26 years and has directed the therapeutic team at St. Anthony for the last 17 years to facilitate the rehabilitation and transition of residents to their home environment

- He received is bachelor's degree from the University of Perpetual Help , Laguna Philippines

- He specializes in geriatrics, fall prevention, wound management, stroke, and Parkinson's rehabilitation

- He is a Certified Fall Prevention Specialist and conducts workshops in the community to educate them about the importance of fall prevention
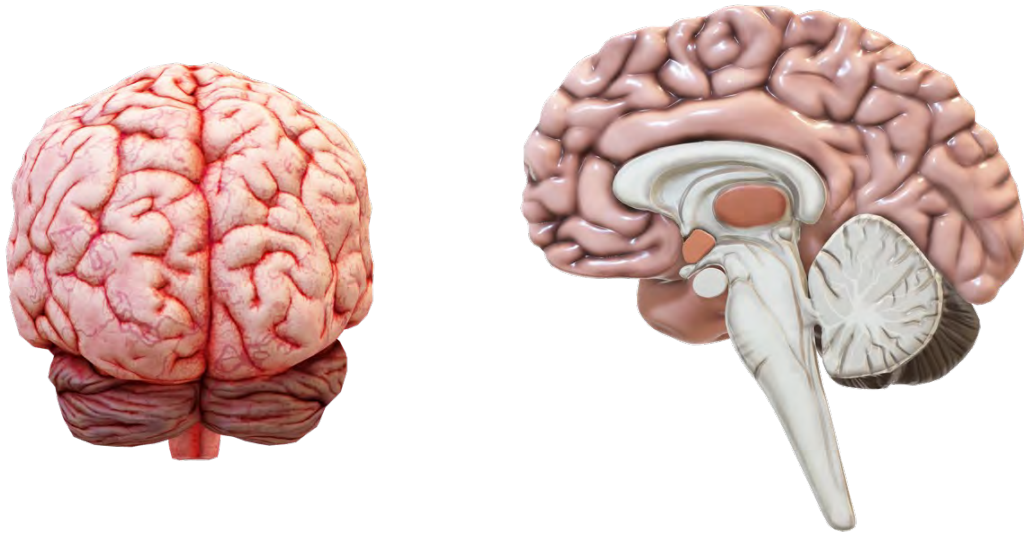
PURA Purdue University Retirees Association

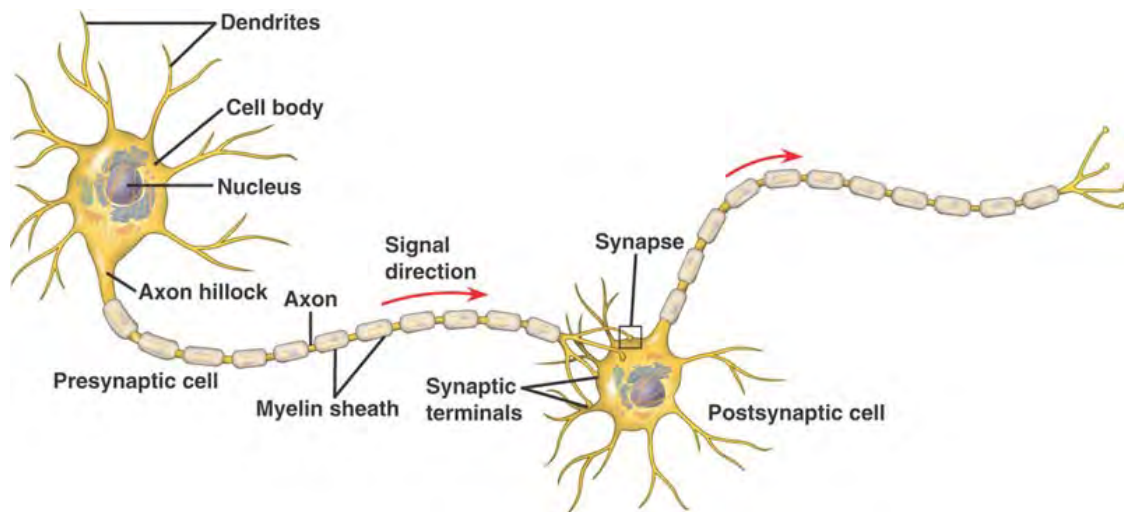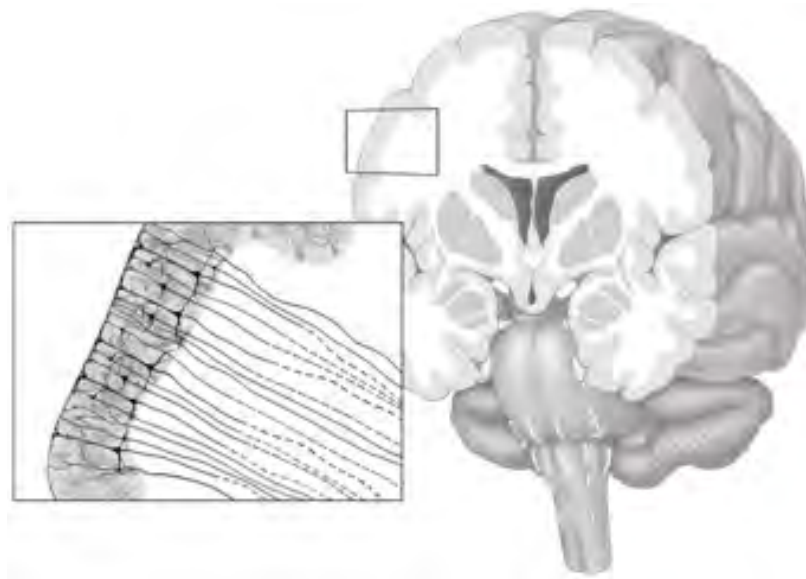**Saint Anthony** Rehabilitation & Nursing Center

UNDERSTANDING NEUROLOGICAL DISORDERS AND REHABILITATION

(Dementia, Stroke, ALS, Parkinson's, MS)

THE NERVOUS SYSTEM

PURA Purdue University Retirees Association
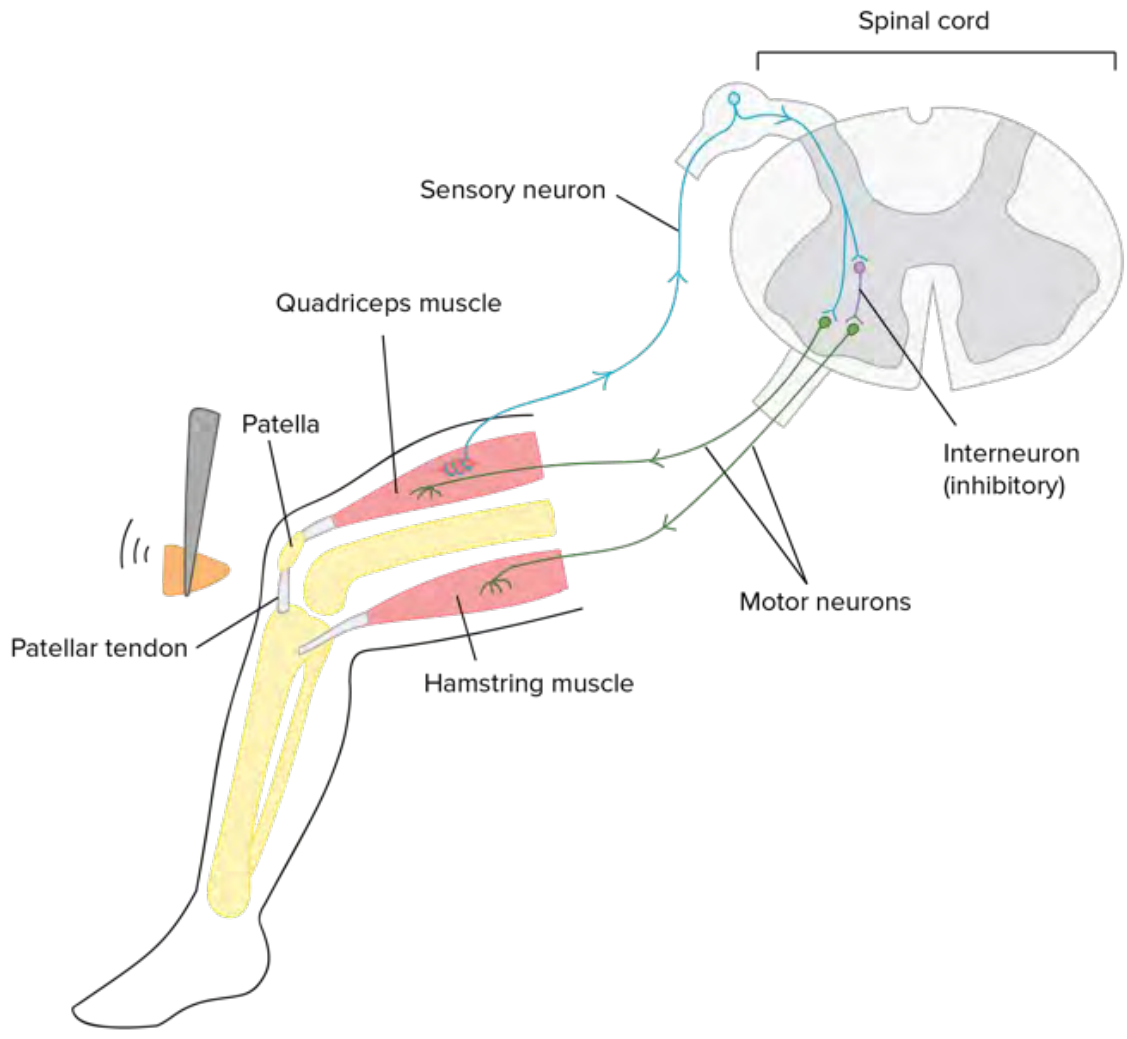
STROKE OR CEREBROVASCULAR ACCIDENT (CVA)

A disease that affects the arteries leading to and within the brain.

This leads to loss of function on the opposite side of the brain.

PURA Purdue University Retirees Association
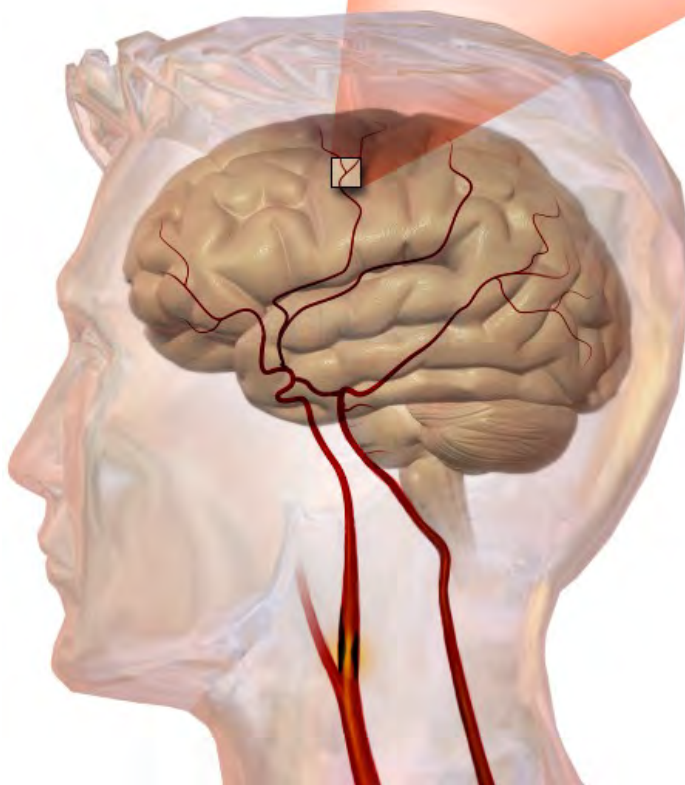
Stroke A stroke, sometimes called a brain attack, happens in one of two ways:

1 Blocked Artery

An **ischemic stroke** occurs when a blood clot blocks the blood flow in an artery within the brain.

Blood Clot

Death of Brain Tissue
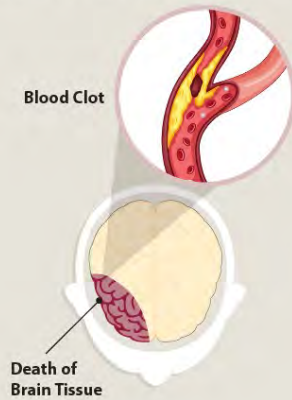
2 Ruptured Artery

A **hermorrhagic** stoke occurs when a blood vessel bursts within the brain.
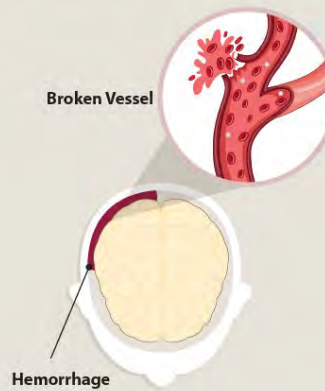
Broken Vessel

Hemorrhage

PURA Purdue University Retirees Association

PURA   Purdue University Retirees Association

NEUROPLASTICITY

- Also known as neural plasticity or brain plasticity, is a process that involves adaptive structural and functional changes to the brain.
- The ability of the nervous system to change its activity in response to intrinsic or extrinsic stimuli by reorganizing its structure, functions, or connections.

PURA Purdue University Retirees Association
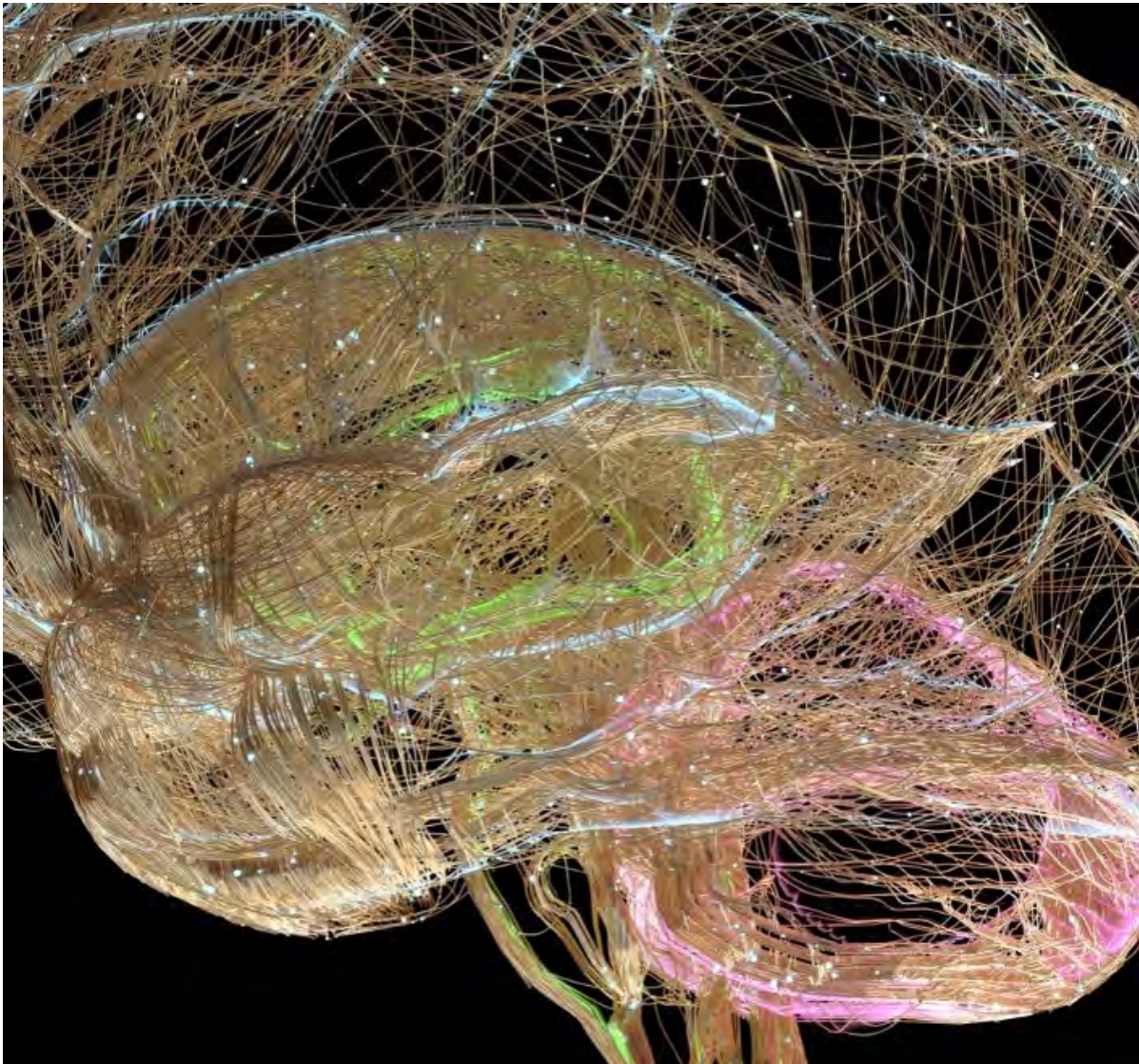
HEMIPARESIS OR HEMIPLEGIA

Weakness or paralysis of one side of the body.

Some Tips:

- Encourage use of the affected extremities. Multiple repetitions of an activity can create new neural pathways.
- Daily stretching of the weak or paralyzed limb to prevent contractures.
- Utilize brace or splints to facilitate function.

UNILATERAL SPATIAL NEGLECT

One sided neglect.

Lack of awareness on the affected side of the body.

More common in right hemisphere strokes.

Some Tips:

- Arrange the furniture to encourage use of the affected side.
- Stay on affected side when having a conversation or when walking together.
- Add sensory stimulation or touch to your verbal requests or instructions

DEMENTIA

Is not a specific disease but is rather a general term for the impaired ability to remember, think, or make decisions that interferes with doing everyday activities.

IS NOT A NORMAL PART OF AGING.

PURA   Purdue University Retirees Association

TYPES OF DEMENTIA

- Alzheimer's
- Vascular
- Lewy Body
- Frontotemporal
- Mixed

TYPES OF DEMENTIA

Alzheimer's

Vascular

Lewy Body

Frontotemporal

Mixed

Healthy Brain

Severe AD
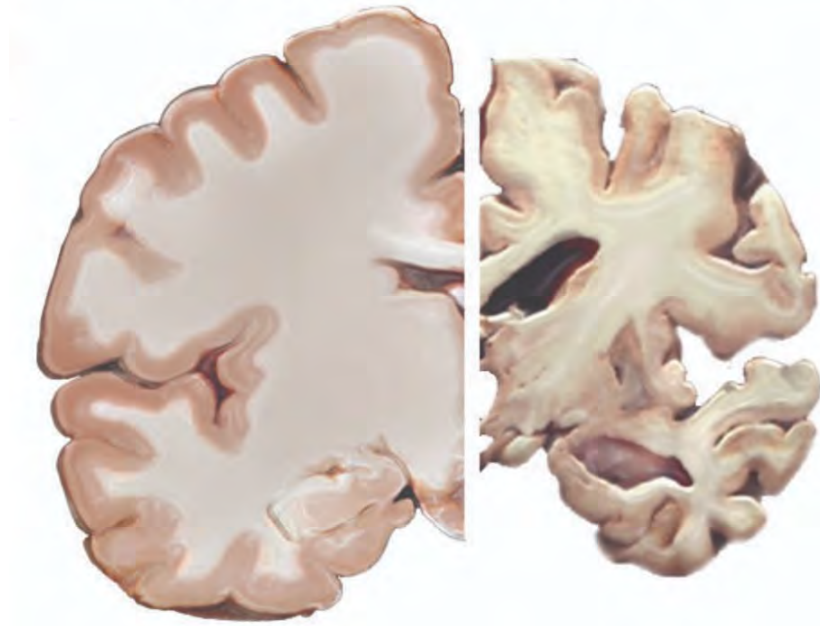
Healthy Neuron

Tau protein

Microtubule

Diseased Neuron

Microtubule dissociation

Tau tangles

Amyloid plaques

PURA   Purdue University Retirees Association

MULTIPLE STAGES OF ALZHEIMER'S DISEASE

Early Stage – memory lapses, difficulty in planning tasks.

Middle Stage – word salad, neologisms, first in last out, past reality/time travel, forgetful of events or personal history

Late Stage – talks little, changes in physical abilities (walking, sitting, swallowing), requires round the clock assistance.

PURA

Purdue University Retirees Association

DEMENTIA TIPS FOR CAREGIVERS

Behavior is communication.

Avoid overstimulation.

Never argue.

Slow down and be patient.

Action speak louder than words.

Avoid negatives.

Avoid open ended questions and limit choices.

Find time to take care of yourself.

PURA   Purdue University Retirees Association

PARKINSON'S DISEASE

A NEURODEGENERATIVE DISORDER THAT AFFECTS PREDOMINATELY THE DOPAMINE-PRODUCING ("DOPAMINERGIC") NEURONS IN A SPECIFIC AREA OF THE BRAIN CALLED SUBSTANTIA NIGRA.

Substantia nigra,

PURA   Purdue University Retirees Association
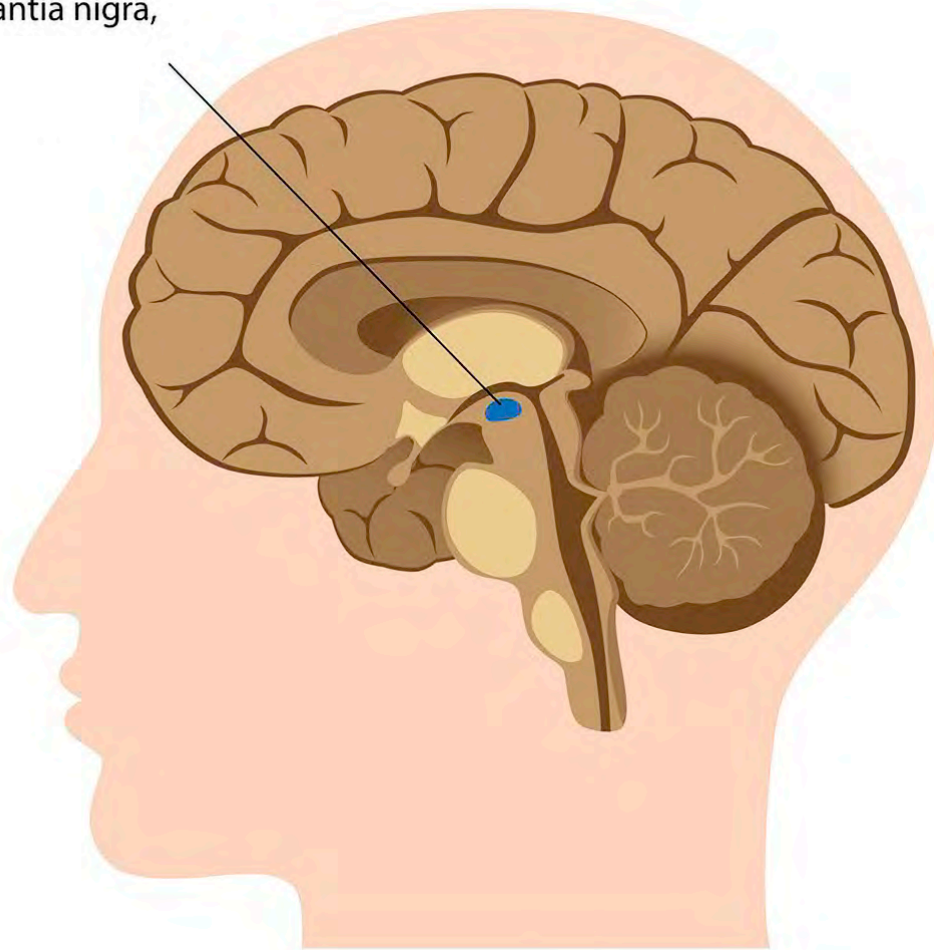
COMMON PARKINSON'S SYMPTOMS AND TIPS

Tremor, mainly at rest and described as pill rolling tremor in hands.	• Try doing flicks • Switch grip
Slowness and paucity of movements (bradykinesia and hypokinesia).	• Think BIG
Limb Stiffness (rigidity).	• Relaxation exercises
Walking and balance problems (shuffling of feet) (freezing of movement)	• Briefly stop activity, take a few deep breaths then resume with a BIG movement.

PURA Purdue University Retirees Association

ALS LOU GEHRIG'S DISEASE

- Also known as Lou Gehrig's disease.
- A progressive motor neuron disease.
- Main goal is to maintain function.

- Low impact exercises are best. Like walking swimming, stationary exercise bike and range of motion exercises.
- Early planning for accessibility of living spaces.

MULTIPLE SCLEROSIS

An Autoimmune Neurologic Disorder

Is a disease that impacts the brain, spinal cord and optic nerves, which make up the central nervous system and controls everything we do. The exact cause of MS is unknown, but we do know that something triggers the immune system to attack the CNS.

Exercise Tips:

1. Regular exercises are recommended.

2. Avoid over exertion.

3. Heat intolerance:

   • Exercise in a cool room.

   • Schedule exercise sessions in the early morning.

PURA   Purdue University Retirees Association

REFERENCES

1. American Heart Association/ American Stroke Association
   www.stroke.org

2. Centers for Disease Control and Prevention
   www.cdc.gov

3. Alzheimer's Association
   www.act.alz.org

4. **www.Alzheimers.gov**

5. National Institutes of Health/ National Institute on Aging
   www.nia.nih.gov

6. The Association for Frontotemporal Degeneration
   www.theftd.org

7. Parkinson's Foundation
   www.Parkinson.org

8. The Michael J. Fox Foundation for Parkinson's Research
   www.michaeljfox.org

9. LSVT-BIG Parkinson's Therapy
   www.lsvtglobal.com

10. ALS Association
    www.als.org

11. National Institute of Neurological Disorders and Stroke
    www. ninds.nih.gov

THANK YOU!

Garry Gumasing PT, CFPS, CSRT, LSVT BIG Cert.
Therapy Director
St. Anthony Rehabilitation and Nursing Center
www.stanthonycares.com

PURA Purdue University Retirees Association

TOMMY KLECKNER
INDIANA LANDMARKS

- Director, Western Regional Office, Terre Haute IN
- Bachelors degree, Community and Regional Planning, Iowa State University
- Masters Degree, Historic Preservation, Ball State University
- Oversees historic preservation and heritage conservation in 17 county area since 2002
- tkleckner@indianalandmarks.org

Hidden Gems

INDIANA LANDMARKS

Landmarks Worth The Drive

PURDUE UNIVERSITY®

150 YEARS OF GIANTLEAPS

PURA Purdue University Retirees Association

Revitalizing communities

Strengthening connections to our diverse heritage

Saving meaningful places

Founded in 1960, Indiana Landmarks from an all-volunteer force to a membership-based nonprofit with professional staff in an Indianapolis headquarters and nine regional offices who help Hoosiers save and repurpose historic places and revitalize neighborhoods and downtowns.

PURA Purdue University Retirees Association
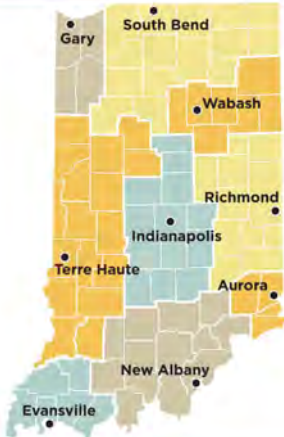
Regional Office locations:

Indianapolis
South Bend
Gary
Wabash
Terre Haute
Cambridge City
New Albany
Evansville
Aurora

Helping people save places that matter

With nine offices located throughout the state, Indiana Landmarks helps reimagine, rescue, and revive meaningful places.

PURA   Purdue University Retirees Association

"Travel is fatal to prejudice, bigotry and narrow-mindedness..."
- Mark Twain

David Ross Summer House
Ross Hill Park

PURA Purdue University Retirees Association

PURA Purdue University Retirees Association

Booe-Inlow-d'Arlier House
d'Arlier Cultural Center
Veedersburg

PURA Purdue University Retirees Association

PURA Purdue University Retirees Association
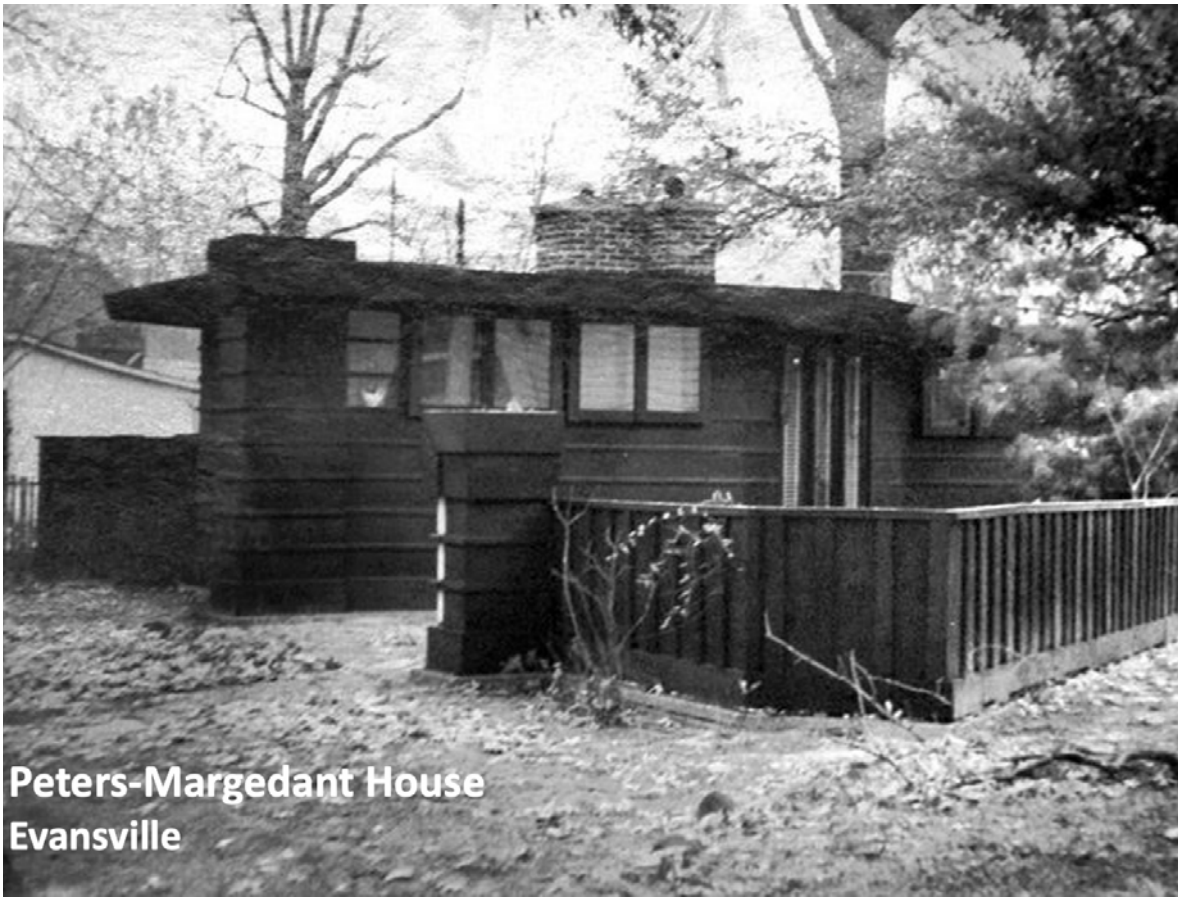
Peters-Margedant House
Evansville

PURA   Purdue University Retirees Association

**Marquette Park
Gary**

Photo credit: Lee Lewellen

PURA Purdue University Retirees Association

Photo credit: Lee Lewellen

PURA Purdue University Retirees Association

Photo Credit: Lee Lewellen

PURA Purdue University Retirees Association

Sunken Gardens
Huntington

PURA   Purdue University Retirees Association

PURA Purdue University Retirees Association

Krider World's Fair Garden
Middlebury

PURA Purdue University Retirees Association

PURA Purdue University Retirees Association

Studebaker Tree Sign
New Carlisle

PURA   Purdue University Retirees Association

PURA Purdue University Retirees Association

Goethe Link Observatory
Morgan County

PURA Purdue University Retirees Association

McKim Observatory
Greencastle

PURA Purdue University Retirees Association

Eleutherian College
Hanover

PURA Purdue University Retirees Association

PURA Purdue University Retirees Association

**St. Mark AME Church
Gary**

PURA Purdue University Retirees Association

Kokomo Opalescent Glass
Howard County

PURA   Purdue University Retirees Association

PURA Purdue University Retirees Association

Reid Memorial Presbyterian Church
Reid Center
Richmond

PURA Purdue University Retirees Association
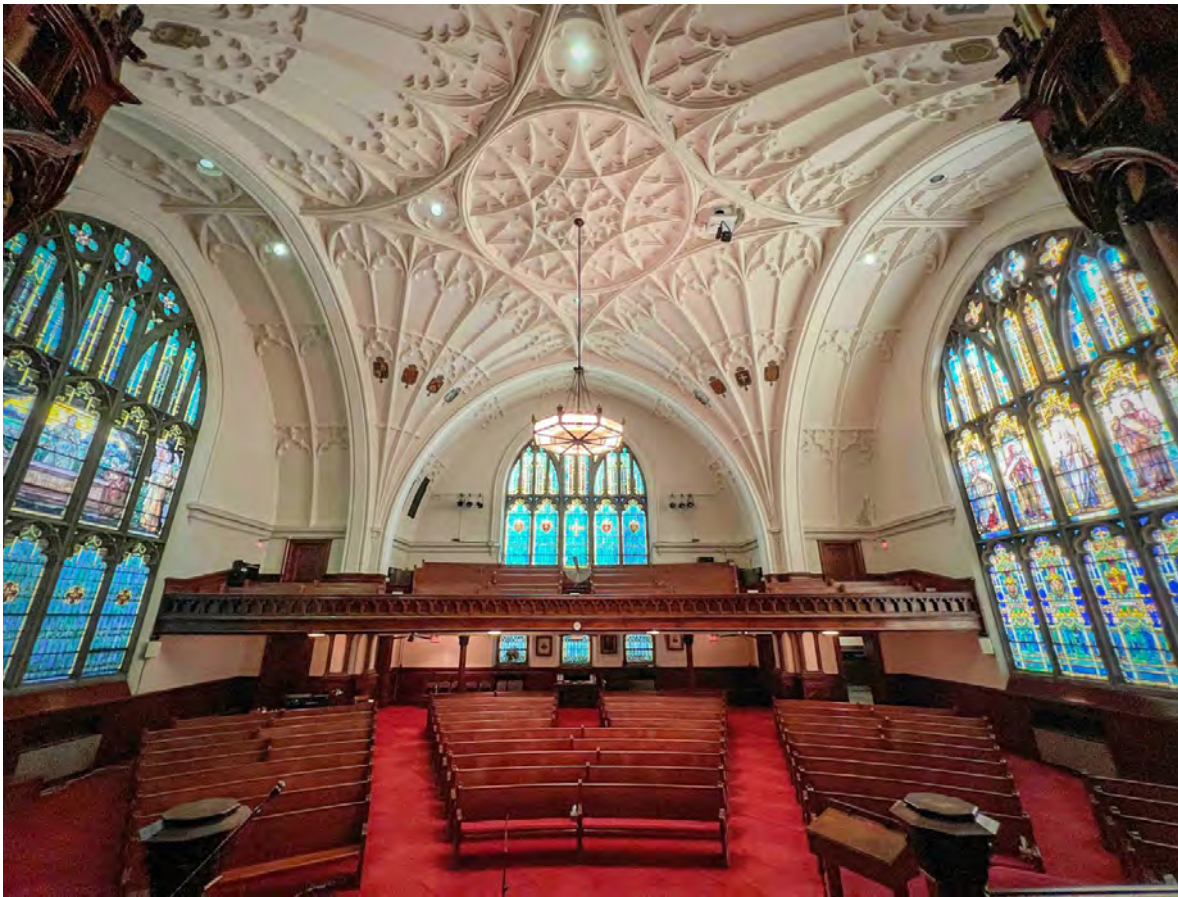
Saint Anne Shell Chapel
Saint Mary-of-the-Woods

PURA Purdue University Retirees Association

PURA   Purdue University Retirees Association

Indiana World War Memorial
Indianapolis

Photo credit: Lee Lewellen

PURA   Purdue University Retirees Association

LST-325
Evansville

PURA Purdue University Retirees Association

Goshen Police Booth

Photo credit: Lee Lewellen

PURA — Purdue University Retirees Association

Photo credit: Goshen Historical Society

PURA Purdue University Retirees Association

Filling Station
Terre Haute

PURA Purdue University Retirees Association

Powers Hamburgers
Fort Wayne

Brackenridge St.

PURA Purdue University Retirees Association

Lemon Drop Drive In
Anderson

Mason's Root Beer Drive In Washington

PURA   Purdue University Retirees Association

Zaharakos
Columbus

PURA Purdue University Retirees Association

THANK YOU

Tommy Kleckner, Director
Western Regional Office
Indiana Landmarks
tkleckner@indianalandmarks.org

PURDUE
UNIVERSITY.

150
YEARS
GIANTLEAPS

EA/EOU

PURA Purdue University Retirees Association

PURDUE RESEARCH FOUNDATION

We are committed to safely and reliably serving our campus customers and supporting both the University's day-to-day operations and the strategic vision for the future.

This means we provide everything from University purchasing and contracts, new construction and renovation of existing campus facilities, landscaping, custodial services, public safety, utilities and more for the Purdue community.

Mike Cline
Senior Vice President for Administrative Operations

PURA   Purdue University Retirees Association

ADMINISTRATIVE OPERATIONS

OUR UNITS

Administrative Operations is comprised of the following five units:

ADMINISTRATIVE SERVICES

Kim Pearson, Chief Administrative Officer

Administrative Services provides data, reporting, communications, training, information technology and administrative support. The mission of the unit is to support, strengthen and unify Administrative Operations.

- Administrative Management
- Communications
- Facilities Information Services
- Integrated Analytics
- Talent Development

AUXILIARY SERVICES

Rob Wynkoop, Vice President

Auxiliary Services provides services and programs that support the Purdue experience and meet the needs of the university.

- Airport Operations
- Materials Management and Distribution
- Parking Facilities
- Procurement Services
- Purdue Memorial Union and Conferences Operations
- Real Estate and Space Administration

FACILITIES OPERATIONS AND ENVIRONMENTAL HEALTH AND SAFETY

Ryan Gallagher, Associate Vice President

Facilities Operations and Environmental Health and Safety provides a comprehensive approach to the safe care and maintenance of our campus.

- Building Services
- Energy and Utilities
- Environmental Health and Safety
- Grounds
- Operations and Maintenance

293,660 UNIQUE PAGEVIEWS FOR THE ONLINE CAMPUS MAP

13 NEW/ENHANCED DASHBOARDS

ADDITION OF **PURDUE CONFERENCES**

13.4M ASSIGNABLE SQUARE FEET (AN INCREASE OF 1% FROM FY22)

99.99% ELECTRICITY UPTIME

SMALL MODULAR REACTOR FEASIBILITY STUDY INTERIM REPORT ISSUED

PURA Purdue University Retirees Association

PHYSICAL FACILITIES AND PUBLIC SAFETY

Jay Wasson, Vice President and Chief Public Safety Officer

Physical Facilities and Public Safety is responsible for strategic leadership of Purdue's capital program and public safety services in support of the university's learning, discovery and engagement mission.

- Campus Planning, Architecture and Sustainability
- Capital Asset Management
- Emergency Preparedness and Planning
- Office of Research Facilities and Space Management
- Purdue University Fire Department
- Purdue University Police Department

39,347 TOTAL PUBLIC SAFETY CALLS

$1.3B MAJOR CAPITAL PROJECTS

PURDUE IN INDIANAPOLIS

Evan Hawkins, Senior Director

As Purdue University expands to Indianapolis, Administrative Operations will lead the efforts to operate and maintain the current facilities that support research, teaching and learning. Additionally, plans are underway for a new academic success building that will be an integral part of campus life for students and faculty. This position will work closely with other Administrative Operations units to ensure the successful execution of the following.

- Planning and Programming
- Service Delivery and Operations
- Community Engagement
- Contract Management

NEW POSITION AS OF NOVEMBER 2023

PURA Purdue University Retirees Association

Investing in Purdue's Future: Major Capital Projects 2023
July 2023

Discovery Park District/ Purdue Research Foundation Projects

Just Completed/Current Construction

Future Construction Approved/Planned

- 19 3rd and McCormick Housing
- 20 Beck's Barn
- 21 Varcity
- 22 Ascension St. Vincent
- 23 Pete Dye Clubhouse

1 Ross-Ade Stadium Renovation	12 Birck Nanotechnology Center Clean Room Modernization
2 Mackey Arena Locker Rooms Renovation	13 Nursing and Pharmacy Education Building
3 Data Science, Stewart Center and Related Renovations	14 Life Science Ranges Phenotyping Greenhouse Building
4 Mechanical Engineering Building Renovation	15 Chilled Water Capacity Enhancement Projects
5 Max W. & Maileen Brown Family Hall First Floor Renovation	16 Hypersonics and Applied Research Building
6 Dudley Hall and Lambertus Hall	17 Zucrow High Speed Propulsion Lab
7 Hillenbrand Residence Hall South	18 Purdue Airport Terminal
8 Libraries Renovations	19 3rd and McCormick Housing
9 University Hall and Related Renovations	23 Pete Dye Clubhouse
10 Purdue Memorial Union Second Floor Hospitality Renovations	CW Campus-wide Classroom Renovations
11 Daniels School of Business	

Total Investment
$1,301,273,000

CAPITAL PROJECTS OUTSIDE OF WEST LAFAYETTE

Rhinehart Music Center Addition (Purdue Fort Wayne)	Indianapolis Academic Student Success Center

PURA Purdue University Retirees Association

DUDLEY LAMBERTUS

Scope

- 255,000 gross-square-feet facility
- Shared by College of engineering and Purdue Polytechnic Institute

Budget

- $45.4M, Gift Funds

Schedule

- Dedication   April 14, 2023

Status

- Complete

PURA   Purdue University Retirees Association

ROSS-ADE STADIUM RENOVATIONS

Scope

- A pedestrian tunnel will be constructed from KFPC onto field level, the existing Team Store will be renovated and converted into student athlete dining, and a concourse connector and additional seating will be constructed in the south end zone

Budget

- $45.4M, Gift Funds

Schedule

- Board of Trustees approval   **April 8, 2022**
- Design start   **April 11, 2022**
- ICHE/SBA approval   **Aug. 31, 2022**
- Construction start   **Dec. 12, 2022**
- Final GMP executed   **May 10, 2023**

- Construction complete (SEZ, Tunnel)   **Aug. 29, 2023**
- Occupancy (SEZ, Tunnel)   **Sept. 1, 2023**
- Construction complete (Dining)   **June 17, 2024**
- Occupancy (Dining)   **July 8, 2024**

Status

- Design and demolition are 100% complete
- Construction is 75% complete overall

CM: AECom Hunt/Harmon   AE: Populous

PURA   Purdue University Retirees Association

PURA   Purdue University Retirees Association

PURA Purdue University Retirees Association

DATA SCIENCE, STEWART CENTER AND RELATED RENOVATIONS

Scope

• This project will accommodate the Data Science program in the formerly named Schleman Hall with a complete renovation of 101,000 GSF of space. Additionally, renovations will be completed to modernize student services and accommodate the new occupants in approximately 45,000 GSF of Stewart Center and 10,400 GSF in the following facilities: Purdue Memorial Union, Hicks Undergraduate Library and Recitation Building.

Budget

• $52.8M

• $47.8M, Operating Funds-Reserves

• $5M, Gift Funds

Schedule

• Board of Trustees approval   Aug. 6, 2021
• ICHE/SBA approval   Dec. 2021
• Final GMP executed   March 1, 2022
• Construction start   April 1, 2022

• Construction complete (Data Science)   April 29, 2024
• Occupancy (Data Science)   Aug. 1, 2024

Status

• Construction is 55% complete (Data Science)

CM: F.A. Wilhelm   AE: MSKTD

PURA   Purdue University Retirees Association
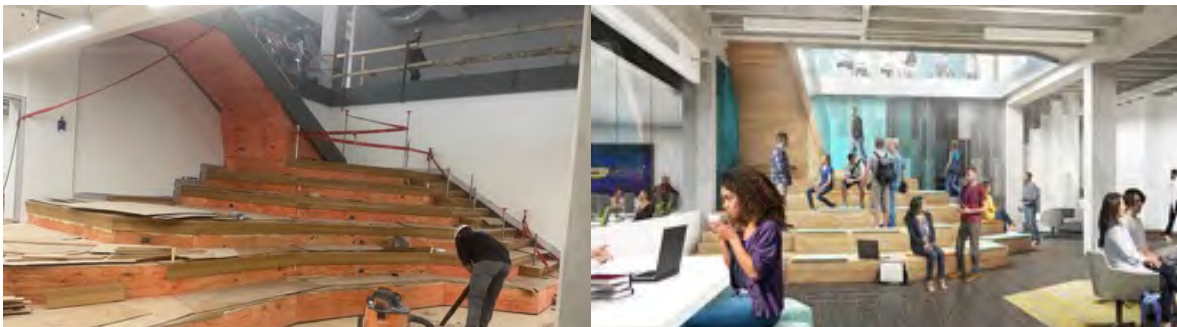
AIRPORT TERMINAL BUILDING

Scope

- Construct a new approximately 10,000 GSF terminal west of the existing terminal, including restrooms, waiting area, baggage claim, ticketing and passenger screening
- Includes exterior improvements for the railroad track pedestrian crossing and parking areas
- The developed space will comply with Transportation Security Administration (TSA) and Federal Aviation Administration (FAA) requirements

Budget

- $11.8M
- State: $7M
- Gift Funds: $3.3M
- Federal – Grant: $1.5M

Schedule

- Study commencement   **March 2023**
- Meet with Greater Lafayette Commerce (GLC)   **May 5, 2023**
- Study completion   **May 31, 2023**
- Updated airport executive summary to GLC   **June 30, 2023**
- BOT approval   **Aug. 4, 2023**
- GMP approval   **Jan. 2024**
- Construction start   **May 2024**
- Construction complete   **May 2025**
- Occupancy   **July 2025**

Status

- The project was approved at the August BOT meeting

  OTR: FA Wilhelm   AE: Woolpert

PURA   Purdue University Retirees Association

AIRPORT TERMINAL BUILDING

- Two Airlines
- 9,500 Total Square Feet
- TSA sized for all new Technologies (Passenger and Bag Screen)

- Bathrooms Pre- and Post Security
- Wellness Rooms

- Pet Relief Area (Outside)
- Hold Room sized for 737 (Largest Charter Flight Potential)

PURA Purdue University Retirees Association
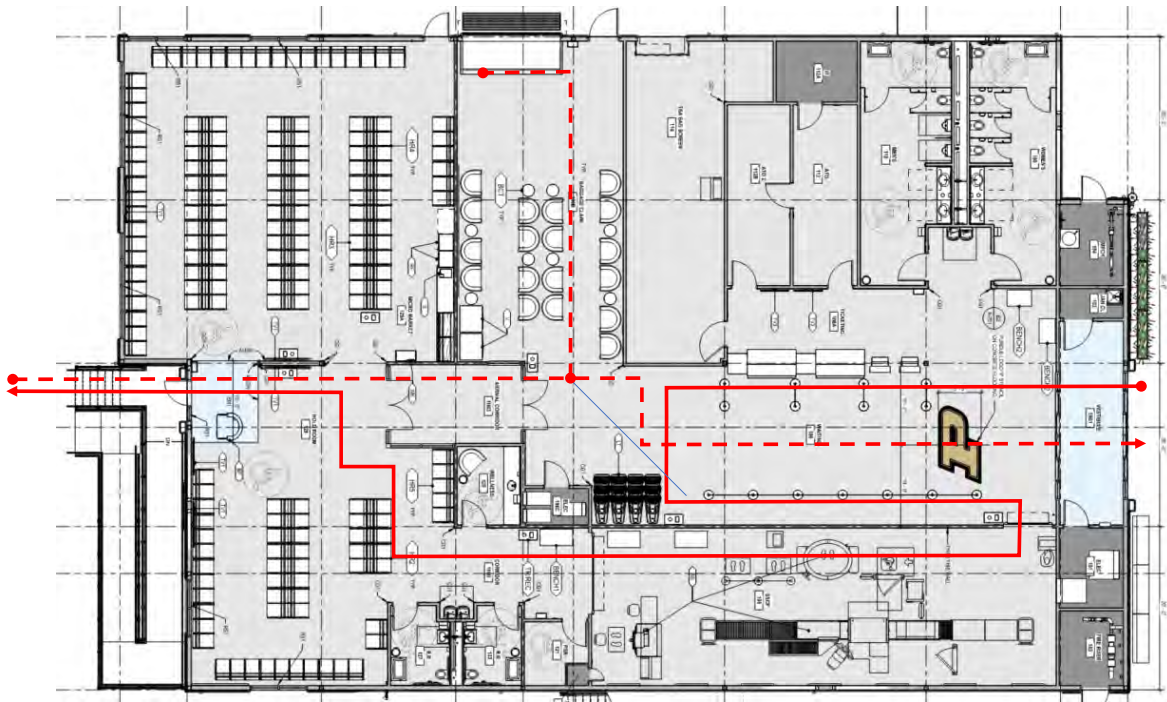
UNIVERSITY HALL AND RELATED RENOVATIONS

Scope

- Completely renovate the 34,000 GSF University Hall and partially renovate Beering Hall and Stanley Coulter Hall to address the need for classroom, student-focused study and collaboration spaces.

- Student-focused spaces will be created where offices, labs and classrooms are currently located, and remaining office spaces are being reprogrammed to meet current and future needs of the College of Liberal Arts.

- Current occupants of Heavilon Hall will be relocated, and the 97,500 GSF building will be demolished.

Budget

- $46.6M
- $36.6M, Operating Funds-Reserves
- $10M, Gift Funds

Schedule

- Project study approval **Feb. 2022**
- Board of Trustees approval **Oct. 7, 2022**
- Final GMP executed **Oct. 20, 2023**
- UNIV vacated **Dec. 2023**
- Construction start (UNIV) **Jan. 2024**
- HEAV vacated **May 2024**
- HEAV demo start **July 2024**
- Construction complete **July 2025**
- Occupancy **Aug. 2025**

Conceptual rendering

Status

- Design is 75% complete, and construction is 2% complete

CM: Kettelhut Construction   AE: MSKTD/Workshop Architects

PURA   Purdue University Retirees Association

Conceptual rendering

PURA Purdue University Retirees Association

NURSING AND PHARMACY EDUCATION BUILDING

Scope

- Construct an approximately 186,000 GSF facility that will provide a new home for the School of Nursing and College of Pharmacy
- Includes general use classrooms, clinical instruction spaces, animal research space, study spaces, offices and common areas
- New and renovated spaces will be incorporate recommendations from the 2022 Classroom Master Plan and 2022 Future of Work office guidelines
- Demolish Grounds Service Building, Johnson Hall of Nursing, Life Science Animal Building and Veterinary Laboratory Animal Building

Budget

- $160M
- $89M, State Appropriation
- $71M, Gift Funds/University Reserves

Preliminary Schedule

- Reprogramming/Enhanced Feasibility Study   **May-Sept. 2023**
- BOT approval   **Aug. 4, 2023**
- Make-ready demolition/utilities   **Sept. 2024**
- GMP approval   **Oct. 2024**
- Construction start   **Oct. 2024**
- Construction complete   **Oct. 2026**
- Occupancy   **Oct.-Dec. 2026**

Status

- The project was approved at the August BOT meeting

  OTR: FA Wilhelm   AE: Ayers Saint Gross / BSA Lifestructures

Conceptual rendering

PURA   Purdue University Retirees Association

PURA Purdue University Retirees Association

RESIDENCE HALL SOUTH OF HILLENBRAND

Scope

- Construct a new eight-story, 252,525 GSF residence hall to include 896 pod-style beds
- Renovate and expand existing dining from 516 to 778 seats
- Adds 4,700 SF of class lab space for the Data Mine learning community, which will bring their total dedicated space to 7,796 SF

Budget

- $149M, Non-Fee Replaced Debt – Auxiliary Housing/Dining:

Schedule

- Programming started **March 2023**
- BOT approval for CMc project **Aug. 4, 2023**
- Construction start **March 2024**
- Construction complete **June 1, 2026**
- Occupancy **Aug. 1, 2026**

Site Advantages

- Build ready site
- Does not require removing beds for construction access
- Allows for first year and move up options at Hillenbrand complex

Status

- The project was approved at the August BOT meeting

OTR: Gilbane Building Company   AE MSKTD and Associates

Conceptual rendering

PURA Purdue University Retirees Association

Conceptual rendering

PURA Purdue University Retirees Association

DANIELS SCHOOL OF BUSINESS

Scope

• Construct a new, approximately 164,000 gross square foot building for the Mitchell E. Daniels, Jr. School of Business (DSB), including new flexible space in support of academic instruction and conferences, near the intersection of Mitch Daniels Boulevard and Sheetz Street

Budget

• $168M, Gift Funds

Schedule

• BOT approval   **December 8, 2023**

• Construction start   **September 2024**

• Construction complete   **April 2027**

• Occupancy   **Aug. 2027**

Status

• Design Development

CMC: Pepper/ Davis   AE Gensler and BSA Life Structures

PURA   Purdue University Retirees Association

PURDUE RESEARCH FOUNDATION

PRF MISSION

A private nonprofit established in 1930, Purdue Research Foundation has celebrated INNOVATORS, ENTREPRENEURS AND RESEARCHERS who use their time and talents to change the world.

" The PRF mission is the mission of the University...
To improve the world through Purdue's technologies and graduates."

BRIAN EDELMAN
President of Purdue Research Foundation

PURA   Purdue University Retirees Association

AMBER CHELLIS-OMEDO

SENIOR DIRECTOR

Purdue Campus Planning, Architecture and Sustainability (CPAS) and University Architect

- She has Bachelors and Masters degrees from the Savannah College of Art and Design
- She is certified by the National Council of Architectural Registration Boards and is a Legacy Accredited Professional
- She is responsible for development, implementation, and delivery of services and projects including campus planning efforts
- She is accountable for the development and coordination of programs that directly impact Purdue's public image and rankings amongst our peers
- The CPAS helped Purdue University obtain the Green Ribbon School award for 2023 and AASHE Star Silver certification

PURA Purdue University Retirees Association

PURDUE UNIVERSITY

CAMPUS AREA IMPROVEMENTS AND FUTURE PLANS FOR NEW FACILITIES

Paul Bercot

SENIOR PROJECT MANAGER, PURDUE RESEARCH FOUNDATION

Amber Chellis-Omedo

SENIOR DIRECTOR, PURDUE CAMPUS PLANNING, ARCHITECTURE AND SUSTAINABILITY AND UNIVERSITY ARCHITECT

PURA Purdue University Retirees Association

Discovery Park District

The university that took us to the moon has a business district for

YOUR NEXT

GIANT LEAP.

Here, innovative corporations and high-growth businesses can access a pipeline of world-class talent, advanced R&D facilities, and a business-minded university to solve their most pressing challenges.

PURA Purdue University Retirees Association

Purdue Research Park

EXPANDABLE AND CUSTOM SITES OPTIONS

- Phase 3 offers 167 continuous acres zoned heavy industrial

- Additional 148 acres available in Phase 4

- Multiple site tract options allowing for custom layout and expansion opportunities.

SITE READINESS

- Utility and road infrastructure in place allowing for quick and reliable construction timeline.

SITE LOCATION

- Nearby access to Interstate 65

- Skilled and available workforce

- Opportunity Zone

- New Market Tax Credit

- Proximity to Purdue University creating unlimited access to world-class research partnerships and graduate talent pipeline

PURA Purdue University Retirees Association

DISCOVERY PARK DISTRICT

PURA Purdue University Retirees Association
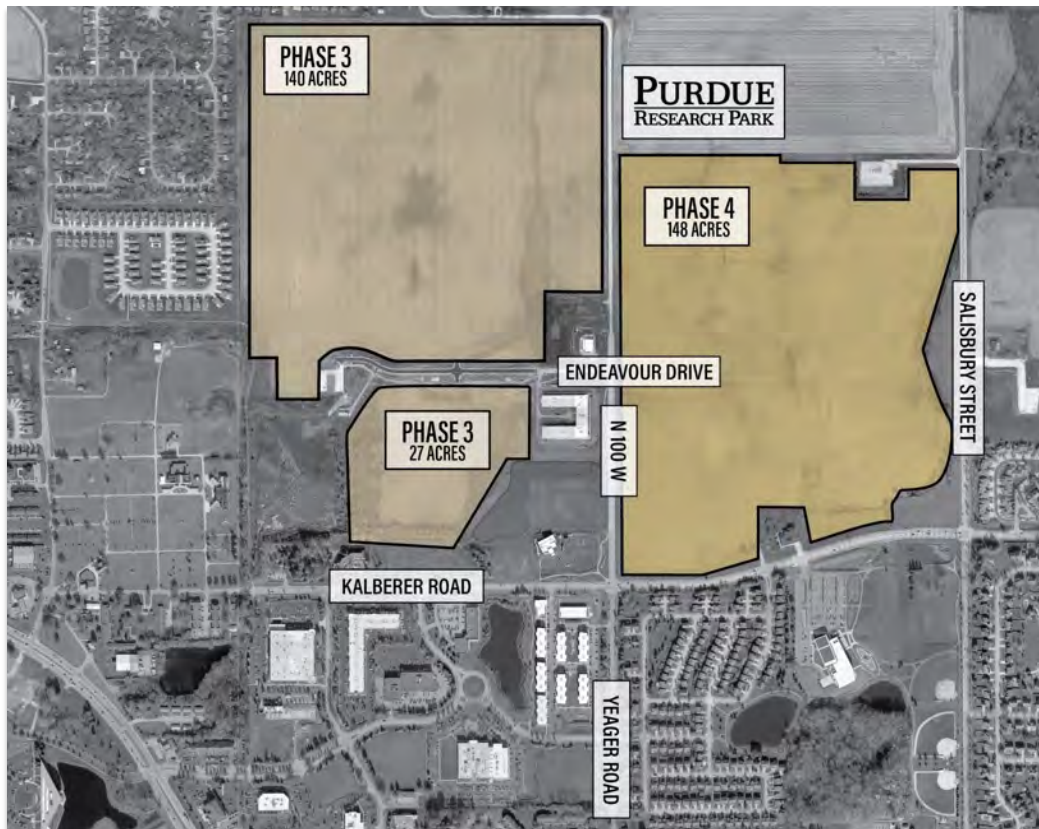
PURDUE RESEARCH PARK

State and Purdue University welcome SK hynix to Indiana

- Investing close to $4 billion to build an advanced packaging fabrication and R&D facility

- Most significant single economic development investment in the state's history

- Joins Bayer, imec, MediaTek, Rolls-Royce, Saab, and many more national and international companies

What's next

- Expected to begin mass production in the second half of 2028

- Create more than 1,000 direct and indirect jobs

- Improved infrastructure for the community, like new roads, improved transportation and utility upgrades

PURA   Purdue University Retirees Association

JAMES L. MOHLER

ASSOCIATE VICE PRESIDENT FOR INTEGRITY, COMPLIANCE AND CARE

Professor of Computer Graphics Technology

- Dr. Mohler provides executive leadership and coordination amongst the various research compliance areas at Purdue

- Dr. Mohler is a University Faculty Scholar, a member of the Purdue University Teaching Academy and a past faculty fellow for the Discovery Learning Center.

- He was a member of Purdue's ADVANCE team and has served as a Diversity Catalyst

- He has authored or contributed to over 21 texts related to computer graphics and media development and also over 71 articles for refereed, reviewed or trade publications

- He has been the recipient of 1.5 million dollars in grants

PURA Purdue University Retirees Association

PURDUE UNIVERSITY®

ARTIFICIAL INTELLIGENCE AND ITS POTENTIAL IMPACT FOR SENIORS

Jamie Mohler

Associate Vice President for Integrity, Compliance and Care

Professor of Computer Graphics Technology

PURA Purdue University Retirees Association

OVERVIEW

- What is AI and How Does it Work?
- Potential Impact of AI on Seniors

- Quality of Life & Independence
- Challenges & Concerns
- Questions and Answers

PURA Purdue University Retirees Association

WHAT IS ARTIFICIAL INTELLIGENCE?

ARTIFICIAL INTELLIGENCE (AI)

- Broader field that create systems to mimic human intelligence
- Problem solving, natural language, patterns decisions

MACHINE LEARNING (ML)

- Subset of AI focused on the algorithms and models behind AI
- Linear regression, decision trees, neural networks

DEEP LEARNING (DL)

- Subset of ML focused on neural networks with multiple layers ("deep")
- Enables processing and learning from large volumes of data

PURA   Purdue University Retirees Association

HOW DOES AI LEARN AND MAKE DECISIONS?

ANALYZE DATA FOR PATTERNS AND RELATIONSHIPS AND IMPROVES THE ANALYSIS BY OPTIMIZING ITSELF

(e.g., image creation or text generation)

1. Data Collection
2. Data Preprocessing
3. Feature Extraction
4. Algorithm Selection
5. Training
6. Evaluation
7. Decision Making
8. Feedback Loop

PURA   Purdue University Retirees Association

EXAMPLES IN EVERYDAY LIFE

VIRTUAL ASSISTANTS

(Alexa, Siri, Google)

ONLINE SHOPPING

(Amazon, eBay, Netflix)

SOCIAL MEDIA ALGORITHMS

(FB, Instagram, TikTok)

LANGUAGE TRANSLATION

(Google Translate,
Microsoft Translator)

SPAM FILTERING

(Gmail, Outlook)

HEALTHCARE DIAGNOSIS

(X-rays, MRI)

AUTONOMOUS VEHICLES

(Tesla, Uber)

SMART HOME DEVICES

(thermostats, cameras, doorbells)

VOICE AND IMAGE RECOGNITION

(speech to text)

FRAUD DETECTION

(Banks, credit bureaus)

PURA   Purdue University Retirees Association

POTENTIAL IMPACT ON SENIORS

- Quality of Life & Independence
- Challenges & Concerns

PURA Purdue University Retirees Association

QUALITY OF LIFE & INDEPENDENCE

Health Monitoring and Management
- (wearables, home monitoring)

Assistive Technologies
- (smart home, IoT, voice-activated)

Personalized Healthcare
- (health data, medical history, lifestyle)

Social Engagement/Companion
- (social robots and companions)

Recipe Generators
- (dietary preference and need)

Personalized Memory Aids
- (schedules, routines)

Learning and Skill Development
- (learning apps, lifelong learning)

Telehealth/Remote Care
- (platforms and services)

Safety and Fall Prevention
- (monitoring, sensors, cameras)

Virtual Travel Guides
- (For mobile and immobile)

PURA Purdue University Retirees Association

CHALLENGES & CONCERNS

- Privacy and Data Security
- Algorithmic Bias and Fairness
- Autonomy and Control
- Transparency and Accountability

- Job Displacement and Economic Impact
- Healthcare Ethics
- Digital Divide and Accessibility

DEMONSTRATION

HTTPS://CHAT.OPENAI.COM/

PURA Purdue University Retirees Association