LUX: Latin for “light,” it also stands for Lawrence University Experience, the name given to any distinctive opportunities that are uniquely Lawrentian.
A problem.
A question.
A theory.
An idea.

Each can be the spark that illuminates discovery through research.

You may have some of these sparks within you already—or you may simply be eager to see what happens when your curiosity meets with opportunity.

At Lawrence University, you will have abundant opportunities for student-directed, faculty-mentored research, whether it’s with our professors here on campus, with our alumni who are professors in major research universities around the world, or even in outside programs you choose to pursue on your own.

We take learning—and research—personally at Lawrence, and are eager to see how you answer some of life’s most persistent questions:

Why does this matter?

How does this work?

Where will this lead?
LAWRENCE UNIVERSITY

RESEARCH FELLOWS

Lawrentians can earn up to a $4,000 stipend to participate in intensive 10-week summer research projects either at Lawrence in our professors’ labs or at Research-1 institutions around the world where Lawrence alumni on the faculty open their labs to Lawrence undergraduates (housing stipend included).

WHERE WILL curiosity LEAD YOU?

These questions take Lawrentians to places like the Irish Field School of Prehistoric Archeology to study ancient societies; the Andes to investigate climate change; Transylvania to perform skeletal analysis; and our own physics laboratory to create lasers out of sound waves. Our brilliant faculty, partnerships with schools and programs in several different countries and generous funding opportunities mean that when it comes to research, the world is yours to explore.
Seeing research as an opportunity “to get her hands” dirty, Breanna Wydra devoted two of her summers researching alongside professors in different areas of chemistry at Lawrence. For one summer, Breanna worked in the lab of Dave Hall, associate professor of chemistry, studying the yeast metabolism and translational brewing.

“If you have no idea what that means, then don’t worry—I didn’t either,” says Breanna. “Basically, what we did is learn about the metabolic and aging functions of different yeast species and then relate our findings to the brewing industry.”

As the brewing industry—from multinational conglomerates all the way down to nanobreweries—continues to expand, the need to differentiate to compete has increased. Breanna’s research led her to discover what types of yeast produce the desired effects in lagers and ales—and led her to start developing entirely new strains of yeast, tailor-made for the brewing industry.

Breanna also worked alongside Allison Fleshman, assistant professor of chemistry, to perform chemical analyses of illuminated manuscripts, medieval works that were handwritten and illustrated with vibrant colors and flecks of gold and silver. Her work on this project picks up where fellow Lawrentian Caren Sullivan had left off the previous summer.

“She made incredible progress with manuscript analysis,” says Breanna. “So my job was to focus on identifying the blue inks via Raman spectroscopy as well as identifying which animal (or animals) the parchment was made out of.” Breanna ultimately views research as

“a critical component of my Lawrence education”

and credits it with helping her “learn organizational skills, prepare for laboratory work or graduate school after Lawrence, and start figuring out what doing research actually means.”
Invest your time exploring big research ideas, like these Lawrentians:

**Gene Regulation in the Immune System of the Freshwater Snail Biomphalaria Glabrata**

Miranda Brandt, working with Judith Humphries, associate professor of biology

**Badass Warrior Women in South America: The Enriching Possibilities of Mobile Translation**

Megan DeCleene

**The Cheerio Effect: When It’s Too Small to Eat**

Ben Roque

**Determining the Function of the Scyba Gene in Embryonic Development of Zebrafish (Danio Rerio)**

Jeannine Degnan, Peter Ericksen, Lauren McLester-Davis, working with Nancy Wall, associate professor of biology

**A New Pair of Genes: The Conservation of Endocytic Genes Between S. Pombe and S. Cerevisiae**

Hannah Kinzer, Olivia Feehan-Nelson

**Using Sound to Create a Pulsed Laser**

Chris Kiehl, working with John Brandenberger, Alice G. Chapman Professor Emeritus of Physics

**Impulsivity Measurement in Abstinent Methamphetamine Dependent Individuals Through Probability and Delay Discounting Tasks**

Brenna Ori, working at Oregon Health and Science University, and Portland Veterans Affairs Hospital

**Chemical Analysis of Supplements**

Lauren Welton-Arndt, working with Deanna Donohoue, assistant professor of chemistry
Working with the Oceanic artifact collection within the MPM’s department of anthropology, Manny conducted research for a new exhibition at the museum. He examined, and helped catalogue more than 80 objects from Melanesia, Micronesia and Polynesia. The poster presentation he created to summarize his work, “The Stories Behind the Artifacts,” won the museum’s 2016 Student Poster Session Award, which includes a cash prize.

Manny’s work with the MPM’s department of anthropology has continued. He helped mount an exhibition on weapons and what they reflect about our cultural history, and has been photographing and organizing artifacts across collections.

The most interesting item he’s catalogued so far? “Probably the Aztec whistle I found hidden away in a pile of potsherds.”
Here’s a small selection of the big ideas our students investigated last year:

**SELF-REGULATION IN PRESCHOOLERS**

Hannah Birch, working with Beth Haines, professor of psychology

**THE EFFECTS OF ANTIBODIES IN THE SNAIL**

Ariana Calderon-Zavala, working with Judith Humphries, associate professor of biology

**RELIGION AND COMICS**

Rachel Geiger, working with Constance Kassor, assistant professor of religious studies

**HOW ANGIOPOIETIN EFFECTS CANCER CELL GROWTH**

Xinrui Yang, working with Kimberly Dickson, associate professor of biology

**DISPERAL BEHAVIOR OF INVASIVE WEEVILS**

Sage Greenlee, Professor Alyssa Hakes

**DOCUMENTARY FILMMAKING, HEALTH DISPARITIES AND SOCIAL SCIENCE**

Bane Toure, working with Andrew Knudsen, associate professor of geology

**RECENT SCHOLARSHIP ON EUROPEAN WITCHCRAFT**

Logan Kilsdonk, working with Edmund Kern, associate professor of history

**POPULATION DYNAMICS OF INVASIVE AQUATIC INVERTEBRATES**

Alexander Timpe, working with Bart De Stasio, Dennis and Charlot Nelson Singleton Professor of Biological Sciences and Professor of Biology
Research fellowships offer you an opportunity to explore, engage and unearth. They let you put into practice the concepts you’ve learned and wrestled with throughout the school year and allow you to collaborate with professors, peers and professionals. It’s an opportunity for you to show the world something new; an opportunity for you to shine your light on subjects in innovative ways.

When you’re ready to seize that opportunity, visit GO.LAWRENCE.EDU/YES today to submit your admission deposit and secure your place within our research community.
LUX: Latin for “light,” it also stands for Lawrence University Experience, the name given to any distinctive opportunities that are uniquely Lawrentian.
A problem.  
A question.  
A theory.  
An idea.  
Each can be the spark that illuminates discovery through research.

You may have some of these sparks within you already—or you may simply be eager to see what happens when your curiosity meets with opportunity.

At Lawrence University, you will have abundant opportunities for student-directed, faculty-mentored research, whether it’s with our professors here on campus, with our alumni who are professors in major research universities around the world, or even in outside programs you choose to pursue on your own.

We take learning—and research—personally at Lawrence, and are eager to see how you answer some of life’s most persistent questions:

Why does this matter?
How does this work?
Where will this lead?
LAWRENCIAN UNIVERSITY RESEARCH FELLOWS

Lawrentians can earn up to a $4,000 stipend to participate in intensive 10-week summer research projects either at Lawrence in our professors’ labs or at Research-1 institutions around the world where Lawrence alumni on the faculty open their labs to Lawrence undergraduates (housing stipend included).

OPPORTUNITIES ABOUND FOR LAWRENTIANS TO DEVOTE THEIR ATTENTION, IMAGINATION AND ENERGY TO THE QUESTIONS THAT MOST INTEREST THEM.

These questions take Lawrentians to places like the Irish Field School of Prehistoric Archeology to study ancient societies; the Andes to investigate climate change; Transylvania to perform skeletal analysis; and our own physics laboratory to create lasers out of sound waves. Our brilliant faculty, partnerships with schools and programs in several different countries and generous funding opportunities mean that when it comes to research, the world is yours to explore.

WHERE WILL CURiosity LEAD YOU?
Seeing research as an opportunity “to get her hands dirty,” Breanna Wydra devoted two of her summers researching alongside professors in different areas of chemistry at Lawrence.

For one summer, Breanna worked in the lab of Dave Hall, associate professor of chemistry, studying the yeast metabolism and translation in brewing.

Breanna also worked alongside Allison Fleshman, assistant professor of chemistry, to perform chemical analyses of illuminated manuscripts, medieval works that were handwritten and illustrated with vibrant colors and flecks of gold and silver. Her work on this project picks up where fellow Lawrentian Caren Sullivan had left off the previous summer.

“She made incredible progress with manuscript analysis,” says Breanna. “So my job was to focus on identifying the blue inks via Raman spectroscopy as well as identifying which animal (or animals) the parchment was made out of.” Breanna ultimately views research as “a critical component of my Lawrence education” and credits it with helping her “learn organizational skills, prepare for laboratory work or graduate school after Lawrence, and start figuring out what doing research actually means.”

Breanna also worked alongside Allison Fleshman, assistant professor of chemistry, to perform chemical analyses of illuminated manuscripts, medieval works that were handwritten and illustrated with vibrant colors and flecks of gold and silver. Her work on this project picks up where fellow Lawrentian Caren Sullivan had left off the previous summer.

“She made incredible progress with manuscript analysis,” says Breanna. “So my job was to focus on identifying the blue inks via Raman spectroscopy as well as identifying which animal (or animals) the parchment was made out of.” Breanna ultimately views research as “a critical component of my Lawrence education” and credits it with helping her “learn organizational skills, prepare for laboratory work or graduate school after Lawrence, and start figuring out what doing research actually means.”
Invest your time exploring big research ideas, like these Lawrentians:

**GENE REGULATION IN THE IMMUNE SYSTEM OF THE FRESHWATER SNAIL Biomphalaria glabrata**

Miranda Brandt, working with Judith Humphries, associate professor of biology

**THE CHEERIO EFFECT: WHEN IT’S TOO SMALL TO EAT**

Ben Roque

**DETERMINING THE FUNCTION OF THE SCYBA GENE IN EMBRYONIC DEVELOPMENT OF ZEBRAFISH (Danio rerio)**

Jeannine Degnan, Peter Ericksen, Lauren McLester-Davis, working with Nancy Wall, associate professor of biology

**USING SOUND TO CREATE A PULSED LASER**

Chris Kiehl, working with John Brandenberger, Alice G. Chapman Professor Emeritus of Physics

**IMPULSIVITY MEASUREMENT IN ABSTINENT METHAMPHETAMINE DEPENDENT INDIVIDUALS THROUGH PROBABILITY AND DELAY DISCOUNTING TASKS**

Brenna Ori, working at Oregon Health and Science University, and Portland Veterans Affairs Hospital

**BADASS WARRIOR WOMEN IN SOUTH AMERICA: THE ENRICHING POSSIBILITIES OF MOBILE TRANSLATION**

Megan DeCleene

**A NEW PAIR OF GENES: THE CONSERVATION OF ENDOCYTIC GENES BETWEEN S. POMBE AND S. CEREVISIAE**

Hannah Kinzer, Olivia Feehan-Nelson

**CHEMICAL ANALYSIS OF SUPPLEMENTS**

Lauren Welton-Arndt, working with Deanna Donohoue, assistant professor of chemistry
BONE DAGGERS, SHARK TEETH AND WHALE BONES...

...those are just a few of the items that Manuel Ferreira studied during his research internship with the Milwaukee Public Museum (MPM).

Working with the Oceanic artifact collection within the MPM’s department of anthropology, Manny conducted research for a new exhibition at the museum. He examined and helped catalogue more than 80 objects from Melanesia, Micronesia and Polynesia. The poster presentation he created to summarize his work, “The Stories Behind the Artifacts,” won the museum’s 2016 Student Poster Session Award, which includes a cash prize.

Manny’s work with the MPM’s department of anthropology has continued. He helped mount an exhibition on weapons and what they reflect about our cultural history, and has been photographing and organizing artifacts across collections.

The most interesting item he’s catalogued so far? “Probably the Aztec whistle I found hidden away in a pile of potsherds.”
Here’s a small selection of the big ideas our students investigated last year:

**SELF-REGULATION IN PRESCHOOLERS**

Hannah Birch, working with Beth Haines, professor of psychology

**SELF-REGULATION IN PRESCHOOLERS**

**RELIGION AND COMICS**

Rachel Geiger, working with Constance Kassor, assistant professor of religious studies

**SELF-REGULATION IN PRESCHOOLERS**

**HANROPE ANTIPOIETIN EFFECTS CANCER CELL GROWTH**

Xinrui Yang, working with Kimberly Dickson, associate professor of biology

**SELF-REGULATION IN PRESCHOOLERS**

**RECENT SCHOLARSHIP ON EUROPEAN WITCHCRAFT**

Logan Kilsdonk, working with Edmund Kern, associate professor of history

**SELF-REGULATION IN PRESCHOOLERS**

**DOCUMENTARY FILMMAKING, HEALTH DISPARITIES AND SOCIAL SCIENCE**

Bane Toure, working with Andrew Knudsen, associate professor of geology

**SELF-REGULATION IN PRESCHOOLERS**

**SELF-REGULATION IN PRESCHOOLERS**

**SELF-REGULATION IN PRESCHOOLERS**

**SELF-REGULATION IN PRESCHOOLERS**
Research fellowships offer you an opportunity to explore, engage and unearth. They let you put into practice the concepts you’ve learned and wrestled with throughout the school year and allow you to collaborate with professors, peers and professionals. It’s an opportunity for you to show the world something new; an opportunity for you to shine your light on subjects in innovative ways.

When you’re ready to seize that opportunity, visit GO.LAWRENCE.EDU/YES today to submit your admission deposit and secure your place within our research community.