

# UNIVERSITY OF KENTUCKY BOARD OF TRUSTEES

Lisa A. Cassis, Vice President for Research



## **RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARLY ACTIVITY (RCR)**

*“As a public institution of higher education, public confidence in the responsible conduct of research (RCR) by faculty, staff and students is critical. We must promote and maintain a culture that is supported by an infrastructure that educates and assists in the ethical conduct of research.”*

Lisa Cassis PhD, UK Vice President for Research (VPR)  
excerpt from 2020 announcement

# Research Misconduct and Responsible Conduct of Research (RCR) at UK

- UK has not been immune to research misconduct. These rare occurrences arise from intentional falsification or fabrication of research data, or plagiarism.
- Research misconduct erodes the general public's trust in research.
- Following the pathway of prevention, we initiated mandatory training in the responsible conduct of research (RCR) in 2021.
- To our knowledge, we are the only institution of higher education in the country that requires training to achieve a baseline level of RCR for all persons performing research at UK.

# RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARLY ACTIVITY (RCR)

## Training mandate

Who completes the training?

- Full-time faculty
- Staff
- Graduate students (only have to complete the training once)
- Trainees (undergraduates, postdoctoral fellows, visiting scientists)
- Individuals supported in part or fully through research funding, grants and contracts.

All together, more than 14,000 UK personnel.

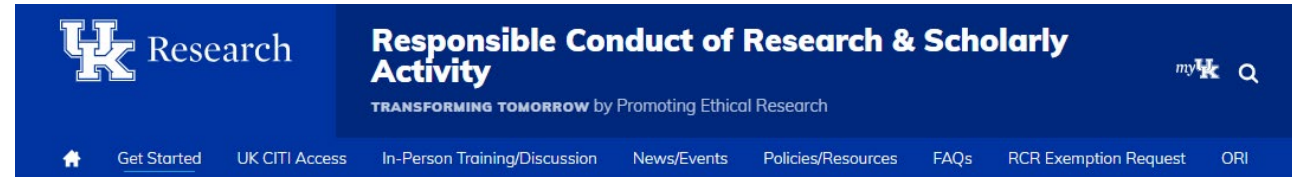
The poster is titled "Developing Transition-Metal Complexes of Metformin to Improve Anticancer Effects" and is presented by researchers from the Markey Cancer Center at the University of Kentucky. The poster is divided into several sections:

- RESULTS: SCHEMATICS & CHARACTERIZATION**: This section contains chemical reaction schemes (Figure 2) showing the synthesis of metal complexes (A, B, C) from metformin and various metal ions (Germanium, Tin, Lead). It also includes NMR spectra (Figure 3) for the synthesized products and a photograph of a pinkish-white solid product (Figure 5).
- Figure 4**: Thin layer chromatography (TLC) results showing the separation of the reaction mixture into metformin and a complex.
- DISCUSSION & CONCLUSION**: A section discussing the findings from TLC and NMR analyses and the need for further characterization to confirm the structure of the synthesized product.
- FUTURE DIRECTIONS**: A section outlining future characterization methods such as x-ray crystallography and elemental analysis, and the plan to proceed with *in vitro* screening and *in vivo* biological applications.

# RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARLY ACTIVITY (RCR)

## Online RCR training

- Via Collaborative Institutional Training Initiative (CITI) platforms
- 6 modules + 1 instructional module
  - Mentoring
  - Peer Review
  - Research Misconduct
  - Conflicts of Interest
  - Data Management
  - Reproducibility of Research Results
- Refresher stage of online course:
  - 2 modules of the individual's choice



## Responsible Conduct of Research (RCR) Getting Started

### Jump to:

<a href="#">CITI RCR Course Information</a>	<a href="#">CITI Account</a>	<a href="#">CITI RCR Course</a>	<a href="#">CITI RCR Course Refresher Stage</a>	<a href="#">General RCR/CITI FAQs</a>
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### CITI RCR Course Information

- I completed the CITI RCR training at my former institution. Can I receive credit for the RCR Course at UK?
- What modules are required?
- How long does it take to complete the CITI RCR course?
- Am I able to quit the CITI RCR course and return to complete it later?
- Are there optional modules pertaining to my discipline that I can complete?



## RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARLY ACTIVITY (RCR)

### In-person RCR training sessions

- One hour; covers 3 case studies.
- The Office of Research Integrity (ORI) has developed 43 case studies around mentoring, peer review, research misconduct, conflict of interest, reproducibility of results, safe work environment and data management.
- Case studies are interactive and engaging; structured for audience participation:
  - Group discussions
  - Reflection questions



The screenshot shows the website for the University of Kentucky's Responsible Conduct of Research & Scholarly Activity (RCR). The header features the UK Research logo and the title "Responsible Conduct of Research & Scholarly Activity" with the tagline "TRANSFORMING TOMORROW by Promoting Ethical Research". A navigation menu includes links for "Get Started", "UK CITI Access", "In-Person Training/Discussion", "News/Events", "Policies/Resources", "FAQs", "RCR Exemption Request", and "ORI". The main content area has a blue background with a white box containing the following text:

**RCR In-Person Training/Discussion**

In addition to the CITI online RCR course, one in-person RCR training/discussion opportunity must be completed biennially. In-person training will be made available through campus and departmental presentations. If preferred, researchers may schedule face-to-face RCR in-person instruction with ORI.



# RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARLY ACTIVITY (RCR)

## Reporting and monitoring of compliance

Unit leaders receive monthly reports on progress by their researchers in completing the mandatory training.

**Course Status**

 (All)  
 Completed  
 Basic/Refresher Required  
 In-Person Required  
 Expiring Soon, Basic/Refresher

University of Kentucky Research, Office of the Vice President for Research (OVPR)

### Personnel Details

To see the department names, hover over the [College or Unit](#) column header and click the expand icon [+].

College or Unit	Add Date	Name	Email Address	Course Type	Course Completion Date	Course Expiration Date	Course Status	Faculty	Paid On Grant	OSPA	IRB	IACUC	Graduate Student	Other
	11/11/2021			Basic/Refresher	03/07/2022	03/07/2024	Completed	●	●			●		
				In-Person	01/24/2023	01/24/2025	Completed	●	●			●		
				Basic/Refresher	05/09/2023	05/09/2025	Completed		●					
				In-Person	04/05/2023	04/05/2025	Completed		●					
				Basic/Refresher	06/21/2022	06/21/2024	Completed		●	●		●		
				In-Person	04/11/2023	04/11/2025	Completed		●	●		●		
				Basic/Refresher	12/28/2021	12/28/2023	Expiring Soon, Basic/Refresher	●	●	●		●		
				In-Person	01/24/2023	01/24/2025	Completed	●	●	●		●		
				Basic/Refresher	10/25/2021	10/25/2023	Expiring Soon, Basic/Refresher	●	●	●	●			
				In-Person	12/20/2022	12/20/2024	Completed	●	●	●	●			
				Basic/Refresher	11/10/2021	11/10/2023	Expiring Soon, Basic/Refresher		●	●	●			
				In-Person	04/06/2023	04/06/2025	Completed		●	●	●			
				Basic/Refresher	08/30/2023	08/30/2025	Completed	●	●	●		●		
				In-Person	01/11/2023	01/11/2025	Completed	●	●	●		●		
				Basic/Refresher	03/15/2022	03/15/2024	Completed		●			●	●	
				In-Person	01/19/2023	01/19/2025	Completed		●			●	●	

Cancel Apply

Highlight Courses Expiring Within (Days)  
90

College or Unit  
(All)

Department  
(All)

Name  
(All)

Person Id

Link Blue Id  
(All)

Personnel Type  
(All)

UKRF

IACUC Protocol Number

IRB Protocol Number

Add Date  
Last 5 years

Source: University of Kentucky, Office of Sponsored Projects Administration (OSPA) Database  
 Compiled by: University of Kentucky, Office of the Vice President for Research

## RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARLY ACTIVITY (RCR)

# Adherence to mandatory training initiative

University of Kentucky RCR Compliance for In-Person Training as of January 25, 2024		
College	% Compliance	Total Required
College of Ag, Food and Environment	95%	1,323
College of Arts & Sciences	91%	1,029
College of Business & Economics	90%	125
College of Communication and Information	95%	139
College of Dentistry	97%	98
College of Design	76%	67
College of Education	87%	478
College of Engineering	86%	590
College of Fine Arts	90%	152
College of Health Sciences	80%	324
College of Law	100%	29
College of Medicine	95%	2,645
College of Nursing	90%	192
College of Pharmacy	96%	149
College of Public Health	92%	269
College of Social Work	58%	208
Graduate School	76%	78
Lewis Honors College	91%	11
Library Administration	96%	51
Other	90%	2,282

- ~900 RCR in-person training sessions delivered.
- ~14,200 researchers or research-eligible personnel trained.
- 153 researchers noncompliant with December deadline for in-person training.
- Number of RCR **trainers** who provided training:
  - Through May 2023: **78**
  - Through December 2023: **18**
  - Currently training: **7**
- Remarkable adherence to mandatory RCR training has contributed to:
  - Publication, in revision, in a peer reviewed journal.
  - Presentations at national meetings on our program progress.
  - Most importantly, no research misconduct cases of significance since 2022.



# QUESTIONS

