



Renowned Biochemist Found Dead in Northwood Lab

By: Lydia Harper

NORTHWOOD — The scientific community is in shock following the death of Dr. Eleanor Vance, 52, a leading biochemist known for her groundbreaking work on synthetic enzymes. Dr. Vance was discovered dead late Wednesday night in Lab 304 at the Northwood Research Institute.

According to the Northwood Police Department, Dr. Vance's body was found near her workbench after an alarm was triggered around 11:40 p.m. by institute security. The laboratory appeared largely undisturbed, though several pieces of glassware were broken, and a vial containing a chemical compound lay open nearby.

Dr. Vance, a native of Duluth, Minnesota, earned her Ph.D. in Biochemistry from the University of Minnesota and had been a faculty member and lead researcher at the Northwood Research Institute for over 15 years. She was widely respected for her meticulous research methods and her dedication to mentoring young scientists.

"She was brilliant, kind, and always had time for her students," said Dr. Lila Moreno, a former colleague. "Eleanor believed in doing science the right way, and she inspired everyone around her."

Friends and family remembered her as equally devoted outside the lab. "Eleanor had a huge heart," said her sister, Dr. Margaret Vance. "She cared deeply about her work, but she cared even more about people. I'm devastated."

Dr. Vance was also known for her ethical stances on scientific research. She had recently rejected a corporate partnership over concerns about potential misuse of her enzyme technology. "Eleanor's work was always about helping people, not profit," said a former student, Renee Carter, who had also worked as her lab assistant.



Around Northwood

Library Extends Evening Hours

The Northwood Public Library has responded to community requests by extending its evening hours. Starting next week, the library will remain open until 9 p.m. on weekdays, offering study space, computer access, and new spring programming for families.

Bridges to Reopen Soon

City officials announced that all pedestrian bridges across the river are expected to reopen on March 15, following three days of repair work. The bridges have been closed since March 12 for safety upgrades, forcing detours for commuters and local employees. Staff and guests at the Northwood Laboratory, in particular, have faced an extra 30-minute walk from parking lot B across the river to the lab during the closures.

Farmers Market Returns

The annual Spring Farmers Market will kick off this Saturday in Riverside Park. Local growers, bakers, and artisans will set up booths from 8 a.m. to 1 p.m. Organizers say the market will feature early-season produce, handmade crafts, and live acoustic music.

Authorities have confirmed that the lab was locked from the inside and that only authorized personnel had access. "We are thoroughly investigating all aspects of this case," said Police Chief Raymond Harris. "At this stage, we are speaking to staff and analyzing laboratory materials. Unfortunately, this appears to be a tragic accident."

A memorial service is expected to be held next week in Duluth, where Dr. Vance grew up. Colleagues and students from across the country are expected to attend to honor her contributions to science and her enduring legacy as a mentor.



NORTHWOODS DINER
"Where neighbors meet for a
good meal."

Main Street, Northwoods
 Open daily: 6 a.m.- 9 p.m.

Come hungry. Leave happy.



Northwood Police Department

Witness Statement (Form W-734)

Case No.
9649-2a

Date filed:
March 14, 2024

WITNESS DETAILS

First Name:	Annette "Ann"	Last Name:	Calloway
Occupation.:	Marketing Manager	Relation:	Girlfriend
Address:	7612 Valleyview Dr.		

WITNESS STATEMENT

I ... I don't even know where to begin. Losing Eleanor—it doesn't feel real. We had so many plans, and now she's just ... gone. I met her about eight months ago at a book reading here in Northwood. We started seeing each other casually at first, and over the last few months things had gotten more serious. She made me feel special, like I mattered, even though she was this incredible scientist with the weight of the world on her shoulders. I'm not a scientist—I work in marketing—so I didn't always understand the details of her work, but I was so proud of her. She lit up when she talked about her research, even if half the words went right over my head.

She was under a lot of pressure, though. I could tell. Sometimes she'd come home exhausted, worried about deadlines or... about people in the lab. Still, most people liked Eleanor. She was kind and fair, the sort of person who earned respect without ever demanding it. That's part of why I can't understand how this happened.

As for the people you've asked me about:

- **Dr. Marcus Adler** - Marcus was her colleague, kind of a protégé in some ways. Eleanor told me once he reminded her of herself when she was younger.
- **Renee Carter** - Renee was Eleanor's lab assistant.
- **Professor Daniel Keene** - From what I gathered, he was Eleanor's rival.
- **Dr. Margaret Vance** - Eleanor's sister.
- **Catherine Rowe** - I don't know Catherine well. Eleanor said Catherine had offered a big contract to the lab.

WITNESS STATEMENT (continued)

I don't know if any of them would actually want to hurt her. She just wanted to focus on her science... and maybe, lately, on us. That's the Eleanor I want to remember. She was kind, brilliant, and finally letting herself be happy again. I can't believe she's gone.

WITNESS DECLARATION

I declare that this statement is made voluntarily, and I confirm that the information provided is accurate and truthful to the best of my knowledge and memory. I also understand that this statement may be used in legal or formal proceedings.

Ann Calloway

Witness Signature

03/14/2024

Date

OFFICE

Detective Harris, Northwood PD

Jean Harris





Northwood Police Department

Crime Scene Photos (Form F-273)

Case No.
9649-2a

Date filed:
March 14, 2024

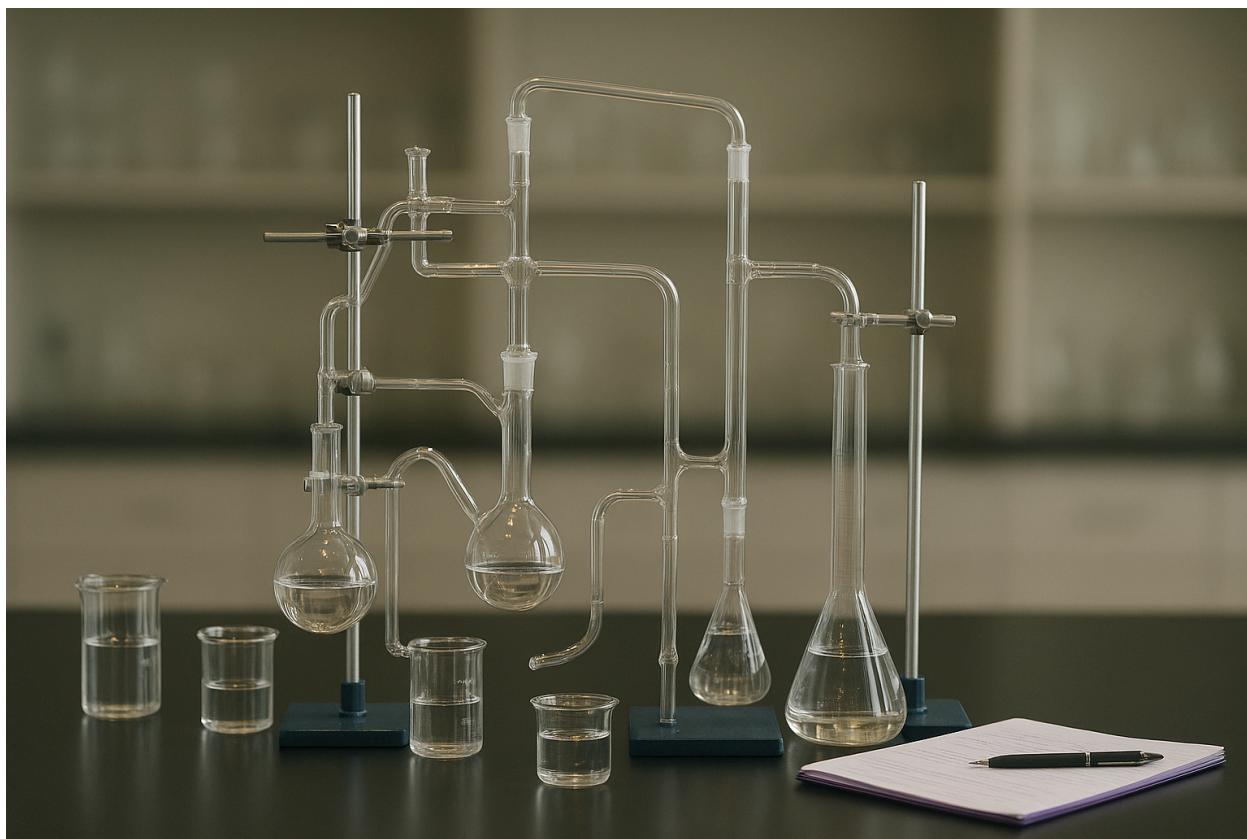
At approximately 11:42 p.m. on Wednesday March 13, security at the Northwood Research Institute reported a laboratory alarm triggered in Wing C, Lab 304. Upon arrival, officers discovered the body of Dr. Eleanor Vance, a renowned biochemist noted for her pioneering work on synthetic enzymes. She was found collapsed near her workbench, face down on the tiled floor. Broken glassware and a toppled stool were nearby.

The lab was locked from the inside. Several notebooks, a laptop, and chemical vials were on the main bench. One vial lay open and empty beside her. A faint chemical odor was noted in the air. No signs of forced entry or struggle were immediately apparent.

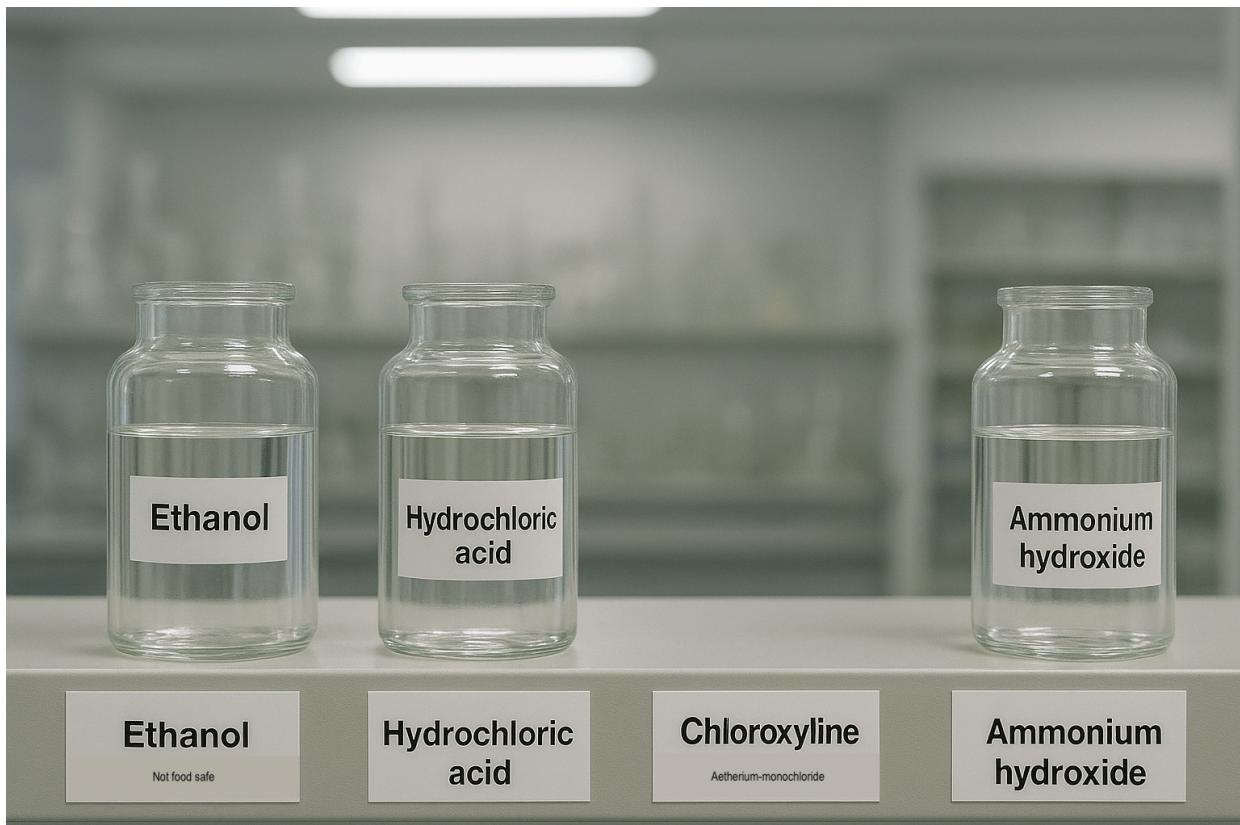
Eleanor Vance



Lab setup



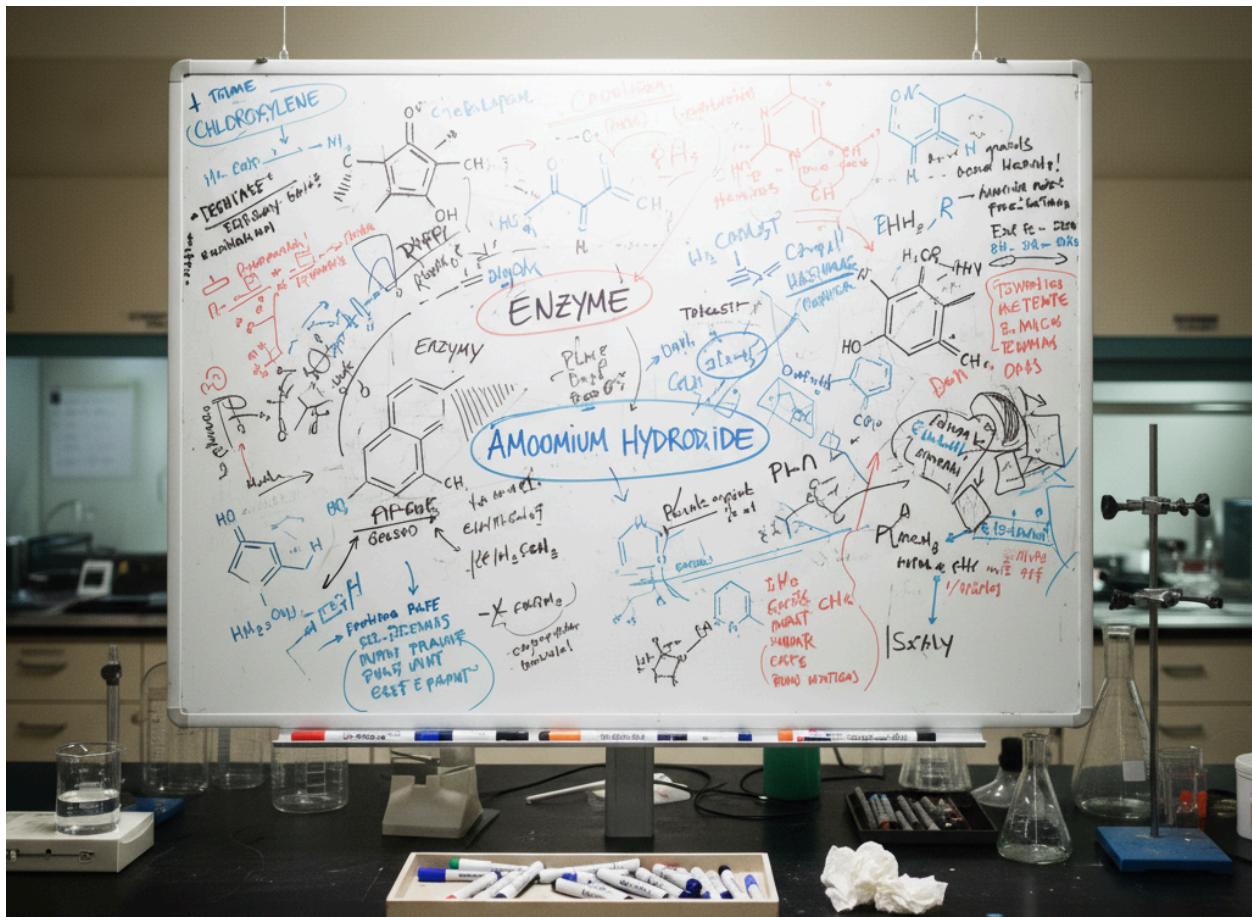
Chemicals



Computer bag



Whiteboard



Enhanced Catalytic Stability of Enzyme Complexes in Alternative Solvent Systems

Eleanor Vance, Ph.D.; Margaret Vance, Ph.D.

ABSTRACT

The activity of enzyme complexes is often constrained by solvent interactions, limiting catalytic efficiency under experimental conditions. We report that a class of oxidoreductase enzymes maintained higher stability and activity when transferred from traditional aqueous (dihydrogen monoxide) systems to a newly developed solvent medium, provisionally termed *Chloroxyline*. Early results suggest that this solvent reduces denaturation rates and prolongs active site availability.

INTRODUCTION

Enzyme stability remains a central challenge in biochemical applications. Conventional aqueous systems provide necessary solubility but frequently compromise long-term activity. Previous studies have noted partial improvements using buffered or ionic solutions, but denaturation remains problematic. In our work, we sought to evaluate an alternative solvent system that could preserve catalytic performance while maintaining compatibility with existing experimental methods.

METHODS

Purified oxidoreductase complexes were initially assayed in standard buffered dihydrogen monoxide. After baseline measurements, samples were transitioned to the experimental solvent system, *Chloroxyline*, developed within our laboratory. Enzyme kinetics, thermal stability, and structural retention were assessed using spectrophotometry and differential scanning calorimetry.

RESULTS

Relative to aqueous systems, *Chloroxyline* produced a measurable increase in catalytic half-life ($p < 0.05$) and reduced unfolding at elevated temperatures. Substrate turnover rates remained consistent, indicating compatibility without inhibition. Notably, structural integrity persisted even after extended exposure (>48h), suggesting improved solvent-protein interactions.

DISCUSSION

While dihydrogen monoxide has traditionally served as the universal medium, these findings indicate that *Chloroxyline* may represent a viable alternative for enzyme stabilization. The solvent appears to create a more favorable microenvironment, reducing denaturation events while supporting efficient catalysis. Future work will examine scalability and broader enzyme compatibility.

CONCLUSION

This preliminary study highlights the potential of *Chloroxyline* as a promising solvent in biochemical research. By enhancing enzyme resilience, it may enable longer and more reliable experimental runs. Continued investigation will determine its full applicability across systems.



Northwood Police Department

Autopsy Report (Form C-642)

Case No.
9649-2a

Date filed:
March 18, 2024

Victim Details

Name: Eleanor Vance

Age: 52

Sex: F

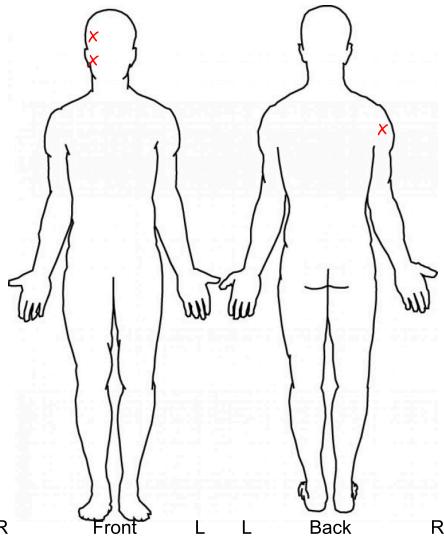
Weight: 140 lbs

Height: 5' 9"

External Injuries

Fresh bruising found on the right side of face

Possible injection wound on right shoulder.



Cause of Death

Unknown at this time. Possible accidental poisoning by inhaling chemical vapors.

Internal Injuries

None

Identifying Information

No tattoos, scars or other identifying markings.

Body positively identified by Annette Calloway

Narrative

No signs of a struggle or other violence. The body was found next to broken glassware and an unknown chemical spilled on the floor. This chemical was not found on the victim's skin. A large bruise was forming on the right side of the face. A possible small injection wound on the right shoulder is consistent with a vaccine injection. All lab employees are required to get numerous vaccines as part of their employment.

A chemical smell was observed when the body was found. There are numerous chemicals in the lab that can, in certain instances, cause death if exposed to their vapors. A toxicology report has been requested.

Internal organs appear healthy and no other external or internal injuries were observed.

Pending the toxicology report, death appears to be accidental inhalation of toxic vapors after accidentally dropping a glass vial. Bruising on the face, most likely happened after loss of consciousness as the victim fell on the hard floor.

Based on degree of rigor mortis, and livor mortis, time of death is estimated between 10:30 pm and 11:15 pm on March 13, 2025

Coroner: Dr. Pat Johnson MD

Officer:

Det. Harris

Signature:

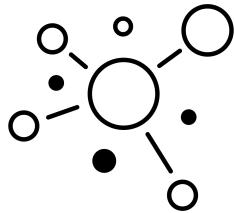
Jean Harris

Signature: Dr. Pat Johnson MD

Department: NNPD

Date:

03 / 18 / 2024



Toxicology Report (summary)

NMP Labs
124 Elm St
Phone (555) 555-0112 Fax (555) 555-0187

Patient

Vance, Eleanor
Age 52
Gender Female
Patient ID 48962-6
Workorder 8-85-642
Postmortum

Forensic Toxicologist

Alex Shoemaker PhD, F-ABFT

Date started: March 18, 2024
Report date: April 12, 2024

Evidence

Item	Specimen	Container	Condition
48962-6-01	Blood	4.7ml green top vial	GOOD
48962-6-02	Blood	3.8ml gray top vial	GOOD

Positive Findings

Compound	Result	Source
Acetaminophen	13.7 ml/L	48962-6-01
Aetherium-monochloride	15.1 ml/L	48962-6-02
Amlodipine	9.2 ng/ml	48962-6-02
Caffeine	4.9 ml/L	48962-6-01
Ethanol	5.1 mg/dL	48962-6-02

Reviewed and Released by

Alex Shoemaker

April 12, 2024



Northwood Police Department

Case Notes

Case No.
9649-2a

Date filed:
April 19, 2024

SUBJECT: Death of Dr. Eleanor Vance

CASE CLOSED

Summary:

Following a full investigation into the death of Dr. Eleanor Vance, the Northwood Police Department has determined that the incident was accidental in nature.

Findings:

- Dr. Vance was discovered deceased in her laboratory on March 13, 2024.
- The coroner's examination found no signs of external trauma, assault, or struggle.
- Toxicology results indicated high levels of exposure to chemical fumes consistent with laboratory solvents.
- The crime scene showed broken glassware and a toppled stool, supporting the conclusion of an accidental spill.
- Fingerprints of lab personnel were found on common-use equipment and glassware, consistent with routine laboratory activity. No evidence of forced entry or tampering with security systems was found.
- Interviews with colleagues, family, and professional associates revealed motives for interpersonal conflict but produced no evidence of foul play. All suspects either had verifiable alibis or no demonstrated opportunity to access the laboratory at the time of death.

Conclusion:

The investigation concludes that Dr. Eleanor Vance was working alone in her laboratory and accidentally knocked over a vial of chemicals. She inhaled toxic fumes, became unconscious, fell, and subsequently died as a result of the accident.

Case Status: Closed - Accidental Death.

OFFICE

Detective Harris, Northwood PD

Jean Harris

About

The Northwood case file is a work of fiction. All people, places, and events were created for the purpose of storytelling. Some details were developed with the help of AI to bring the mystery to life. Any resemblance to real individuals or events is purely coincidental.

I've always loved solving case file-style games — the challenge, the puzzle, and the way the story slowly unfolds. So I decided to create my own. This is my very first case file. With my background in science, it felt natural to build a mystery rooted in a scientific setting. I hope you enjoy exploring it as much as I enjoyed creating it.

K Doberstein