## **Summer Reading Study Guide - Chemistry**

## Vector by Robin Cook (ISBN 9-780425-172995)

New York City cab driver Yuri Davydov is a disgruntled Russian immigrant poised to lash out at the adoptive nation he believes has denied him the American Dream. A former technician in the Soviet biological weapons system, Yuri possesses the knowledge to wreak havoc in his new home. But before he executes his plan city-wide, he experiments first on his suspicious live-in girlfriend, then on a few poor-tipping fares.... Forensic pathologists Dr. Jack Stapleton and Dr. Laurie Montgomery (both last seen in *Chromosome 6*) begin to witness some unusual cases in the city's medical examiner's office. But the question soon becomes whether the pair will solve the puzzle before Yuri unleashes into the streets of New York the ultimate terror: a modern bioweapon..

## Main Characters:

Dr. Jack Stapleton Tim Melcher Flash Thomas
Dr. Laurie Montgomery Steve Henderson Jason Papparis
Yuri Davydov Warren Wilson Paul Sutherland
Connie Davydov Stan Thornton Dr. Randolph Sanders

Curt Rogers Lou Saldano

**Terms:** Glossary in the back of the book

Pathology Weapons of mass destruction pathogenicity
Histology (WMD) hazmat suit
occupational exposure Botulinum toxin - miscengenation

Anthrax toxicity methemoglobnemia

(inhalation anthrax) bacillus anthracis

## Study Questions:

- 1. What was the importance of the infected owner of the Corinthian Rug Company with anthrax?
- 2. Why did Curt and Steve think Yuri was such a loose cannon? What instances enhanced these feelings?
- 3. What was the inspiration behind Yuri's disgust with America? Curt and Steve's?
- 4. Why was Yuri important to Curt and Steve? Where did Yuri receive his training? What is Compound 19? Why did Yuri have to leave there and how did it affect his family?
- 5. What was the role of the PPA (People's Aryan Army)?
- 6. Name the casualties and describe their significance.
- 7. What is Operation Wolverine?
- 8. What was the purpose of the inspection of the Jacob Javits Federal Building? Significance of the HVAC system?
- 9. Why was the botulinum not used for Operation Wolverine? Why was anthrax preferred? How was each being cultured? What was the original source of these two bioweapons?
- 10. Why was the method of Connie's death significant? 2 reasons. What was she not autopsied? How was she eventually diagnosed? What simultaneous occurrence indicated a possible epidemic in her neighborhood?
- 11. Why was Laurie disenchanted with Paul Sutherland? What was the possible relationship between Paul's profession and the PAA?
- 12. What is a polymerase chain reaction (PCR)?
- 13. How did Jack and Laurie end up at Yuri's house?
- 14. Explain the irony of the ending. How did Operation Wolverine play out? Who had the last laugh?