

USMLE Step 1 – it's all about the strategy


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My personal timeline for Step 1

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- July 2016: USMLEs? US residency? The Match?
 - September 2016: strategy
 - November 2016: preparation period start
 - January 2017: registration and application
 - August 17th, 2017: Exam in Munich, Germany
 - Mid September, 2017: score report available (250+)

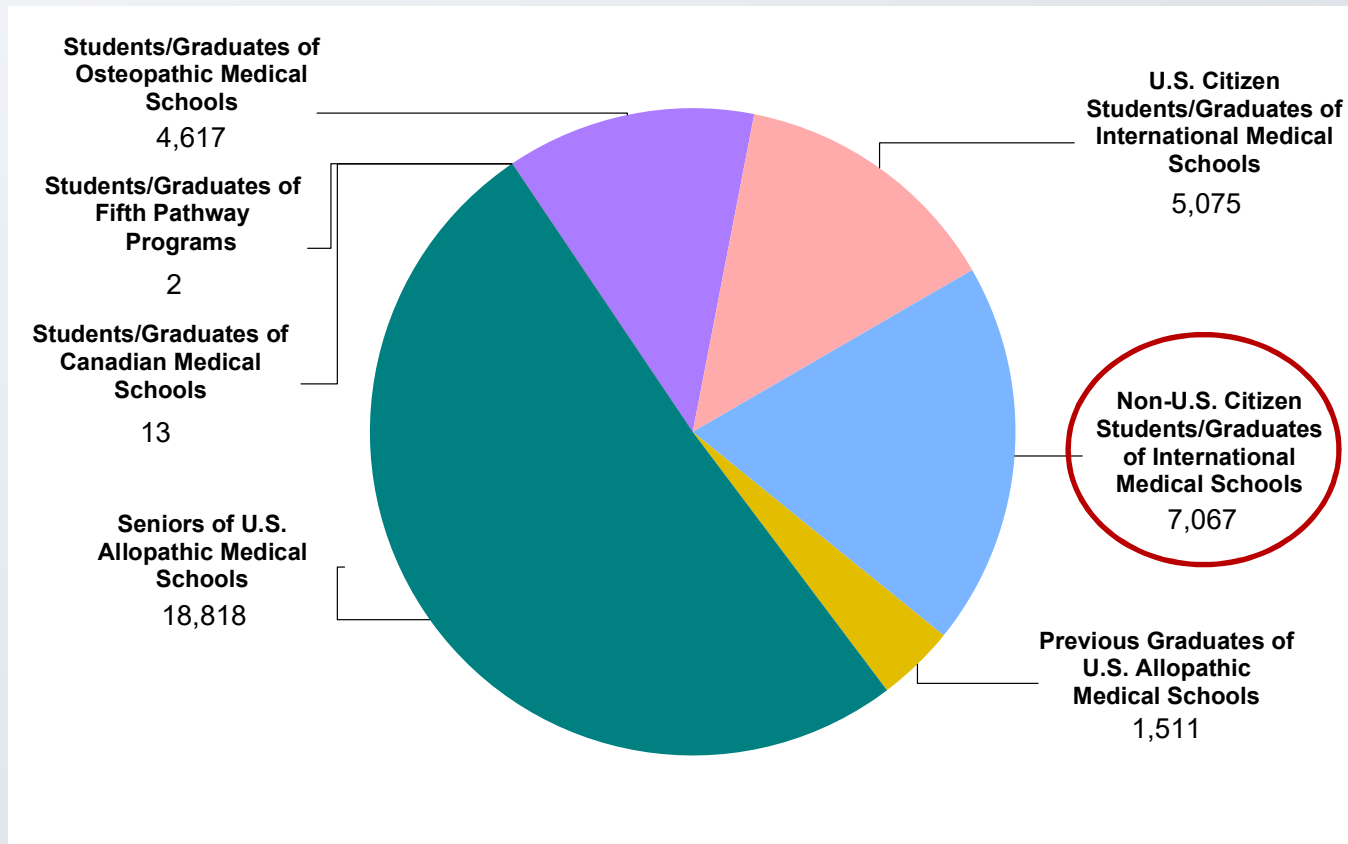
USMLEs

- Step 1 (preclinical knowledge)
 - Step 2 CK (**C**linical **K**nowledge)
 - Step 2 CS (**C**linical **S**kills) (in the USA)
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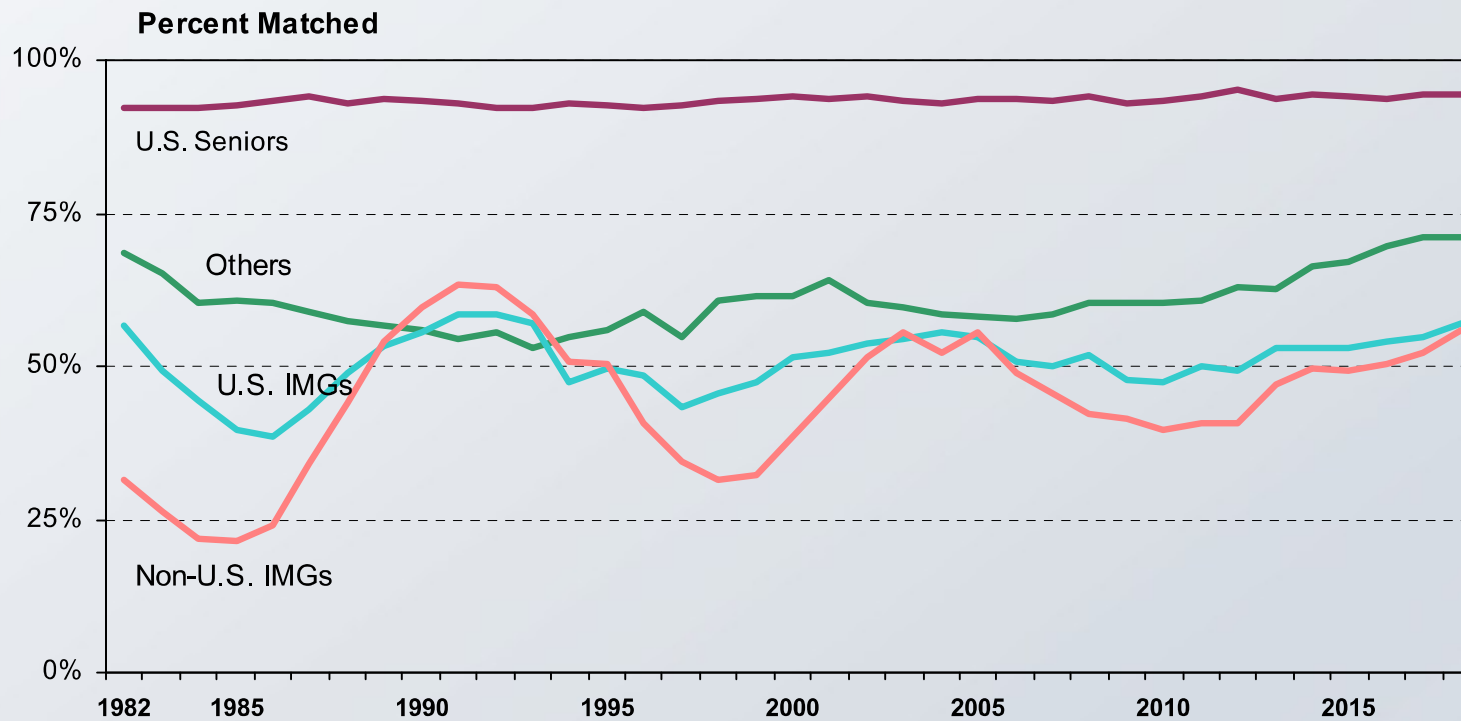
→ ECFMG certificate (apply for the Match)

- Step 3 (in the USA)
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Total applicants in the 2018 Match



Match rates by applicant type



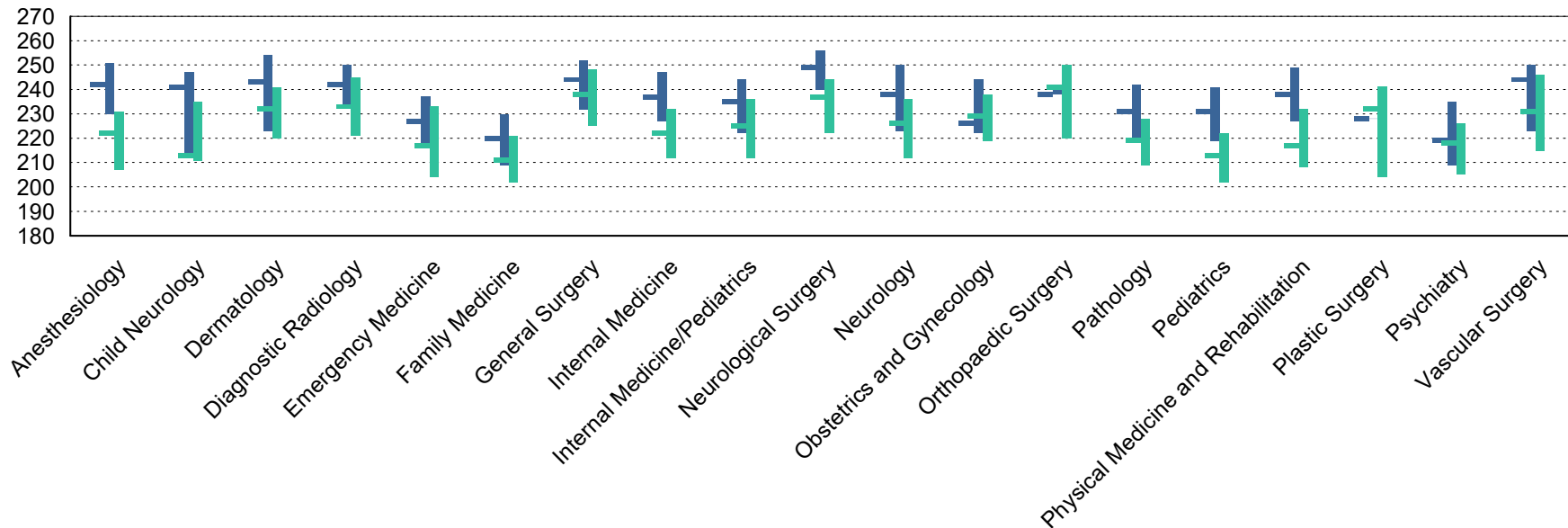
The Residency Match

- Step 1 Score (first attempt recommended)
- Step 2 CK Score (first attempt recommended)
- Letters of Recommendation
- Research experience (incl. PhD degree, publications)
- US Clinical experience (USCE)
- Volunteer experience
- ...

USMLE Step 1 scores

Non-U.S. IMGs

┆ Matched ┆ Not Matched



Obstetrics and Gynecology

Measure	Non-U.S. IMGs	
	Matched (n=36)	Unmatched (n=73)
1. Mean number of contiguous ranks	3.8	2.5
2. Mean number of distinct specialties ranked	1.3	1.6
3. Mean USMLE Step 1 score	231	228
4. Mean USMLE Step 2 score	237	237
5. Mean number of research experiences	3.1	3.1
6. Mean number of abstracts, presentations, and publications	9.1	6.7
7. Mean number of work experiences	5.3	4.8
8. Mean number of volunteer experiences	3.6	4.2
9. Percentage who have a Ph.D. degree	8.6	3.0
10. Percentage who have another graduate degree	37.1	34.4

Internal Medicine

Measure	Non-U.S. IMGs	
	Matched (n=1,917)	Unmatched (n=1,403)
1. Mean number of contiguous ranks	7.0	2.3
2. Mean number of distinct specialties ranked	1.2	1.3
3. Mean USMLE Step 1 score	236	222
4. Mean USMLE Step 2 score	241	228
5. Mean number of research experiences	2.1	2.1
6. Mean number of abstracts, presentations, and publications	4.6	4.5
7. Mean number of work experiences	5.5	6.3
8. Mean number of volunteer experiences	3.4	3.5
9. Percentage who have a Ph.D. degree	1.7	1.7
10. Percentage who have another graduate degree	17.9	25.5

General Surgery

Measure	Non-U.S. IMGs	
	Matched (n=62)	Unmatched (n=173)
1. Mean number of contiguous ranks	3.4	2.0
2. Mean number of distinct specialties ranked	1.2	1.3
3. Mean USMLE Step 1 score	242	236
4. Mean USMLE Step 2 score	249	240
5. Mean number of research experiences	5.2	3.1
6. Mean number of abstracts, presentations, and publications	15.0	11.7
7. Mean number of work experiences	5.4	6.1
8. Mean number of volunteer experiences	3.5	4.1
9. Percentage who have a Ph.D. degree	5.3	2.6
10. Percentage who have another graduate degree	21.1	27.1

Average salaries (residency)

Allergy & Immunology	\$68,000		Neurology	\$60,500	
Rheumatology	\$66,200		Orthopedics	\$60,100	
Surgery, Specialized	\$66,100		Pathology	\$60,100	
Critical Care	\$64,900		Orthopedic Surgery	\$59,900	
Gastroenterology	\$64,600		OB/GYN & Women's Health	\$59,800	
Nephrology	\$64,200		Urology	\$59,200	
Endocrinology	\$63,400		Anesthesiology	\$59,000	
Plastic Surgery	\$63,100		Surgery, General	\$58,800	
Cardiology	\$62,100		Dermatology	\$58,600	
Oncology	\$62,100		Otolaryngology	\$58,200	
Neurological Surgery	\$61,800		Pediatrics	\$58,200	
HIV/Infectious Diseases	\$61,700		Ophthalmology	\$57,600	
Hematology	\$61,500		Physical Medicine & Rehab	\$57,500	
Medical Geneticists	\$61,400		Internal Medicine	\$57,000	
Pulmonary Medicine	\$61,100		Emergency Medicine	\$56,800	
Psychiatry	\$60,800		Family Medicine	\$55,900	
Radiology	\$60,700		Public Health & Prev Med	\$55,500	

Personal strategy

- Target medical speciality?
- Target score?
- Time management?
- Fees?
- Other beneficial criteria for a residency application?

My personal strategy (summer 2016)

- Field: internal medicine (oncology)
- Target score: 250+
- Target exam date: summer 2017
- Preparation: 2-3h/d (8 months) + 8-10h/d (2 months)
- Other criteria: PhD, publications, USCE, USMLEs...
- Fees: \approx 1.800\$ in total

Registration process

- Register >6 months prior to the exam
- Apply for ECFMG certification
- Apply for USMLE Step 1 (3 months period)
- Select exam site and date (Prometric)
 - Test centers close to Vienna: Munich, Zagreb, Frankfurt, Budapest, Milan, Berlin, etc.
- Receive scheduling permit

→ ≈ 2.000\$ in total

Step 1 – examination format

- One-day examination
- 7 x 60min blocks + 1h break = 8h
- Multiple-choice questions
- ≈ 40 q / block (= 1.3min / q)

Step 1 – the exam

- **Anatomy** (= MUV, but clinical cases)
- **Behavioral sciences** (> MUV, ethics!)
- **Biochemistry** (> MUV, clinical cases)
- **Biostatistics and epidemiology** (SSMs)
- **Microbiology** (> MUV)
- **Pathology** (> MUV)
- **Pharmacology** (= MUV)
- **Physiology** (= MUV)
- **Aging**
- **Genetics** (= MUV)
- **Immunology** (> MUV)
- **Molecular and cell biology** (= MUV)
- **Nutrition**

Step 1 – the exam layout

- To apply basic science knowledge to clinical problems
- To interpret graphic and tabular material
- To identify gross and microscopic pathologic and normal specimens

Case vignette – example

A sexually active 23-year-old man with multiple sex partners has dysuria and a yellow urethral exudate. Gram stain of the exudate shows numerous neutrophils, many that contain intracellular gram-negative diplococci. He has had three similar episodes of urethritis over the past 2 years.

Which of the following properties of the infecting organism best explains the reinfection?

- (A) Antigenic variation
- (B) Catalase
- (C) Inhibition of B-lymphocyte function
- (D) Inhibition of T-lymphocyte function
- (E) Polysaccharide capsule

Case vignette – example

A 20-year-old man comes to the physician's office for a scheduled health maintenance examination. His father died of a myocardial infarction at age 55 years. Physical examination shows a tendon xanthoma on the elbow. His serum total cholesterol concentration is 360 mg/dL. A mutation is most likely to be found in which of the following genes?

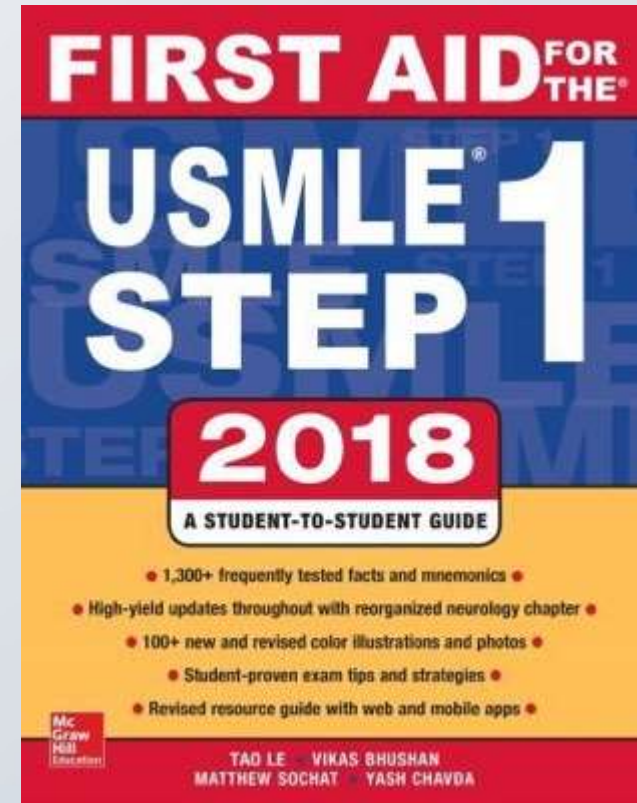
- (A) apoA2
- (B) apoC2
- (C) apoE- ϵ 4
- (D) LDL receptor
- (E) VLDL receptor

Challenges

- Broad basic knowledge
- “Translational thinking“
- Time + pressure
- Study resources

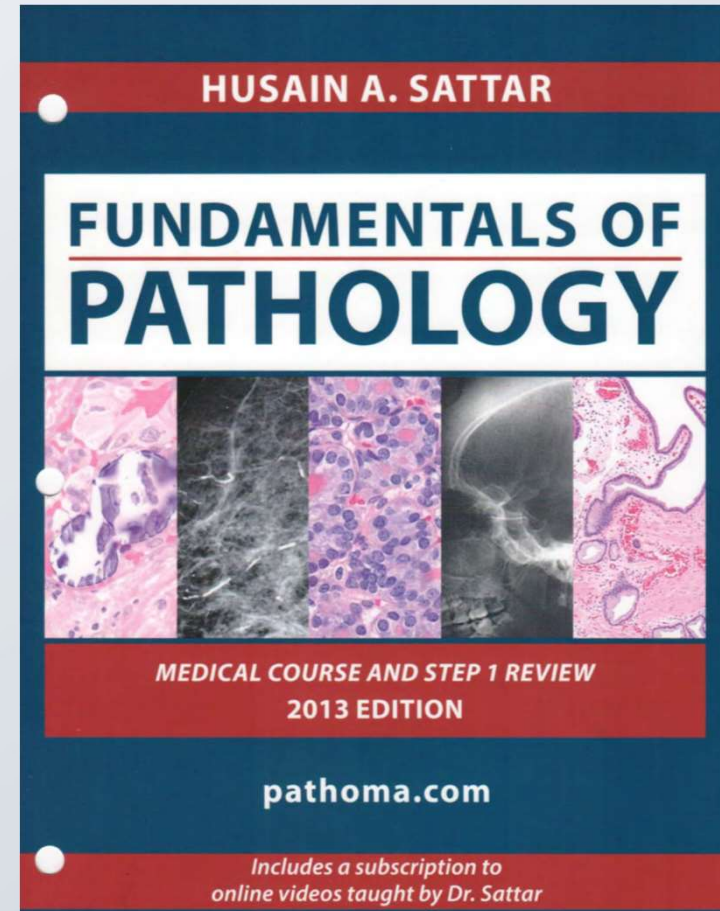
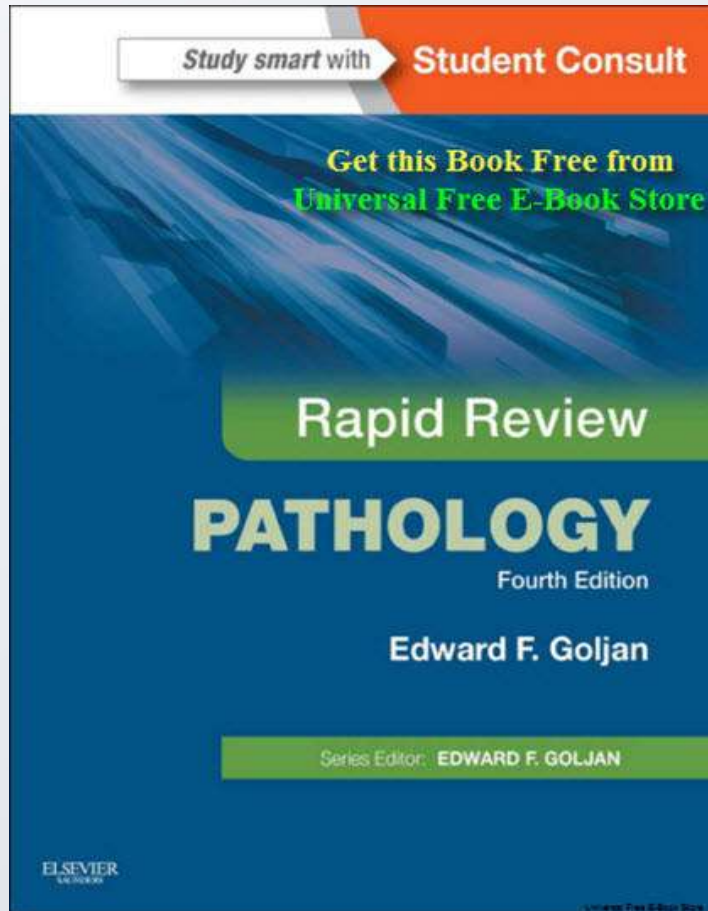
FIRST AID for the USMLE Step 1

- essential
- comprehensive
- Useful information regarding registration, preparation for exam
- best starting resource



www.amazon.com

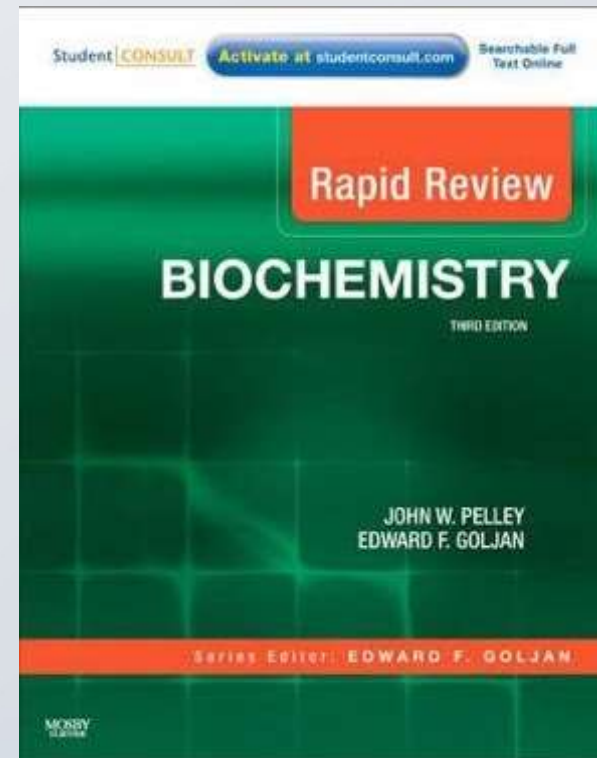
Pathology



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Rapid Review Biochemistry

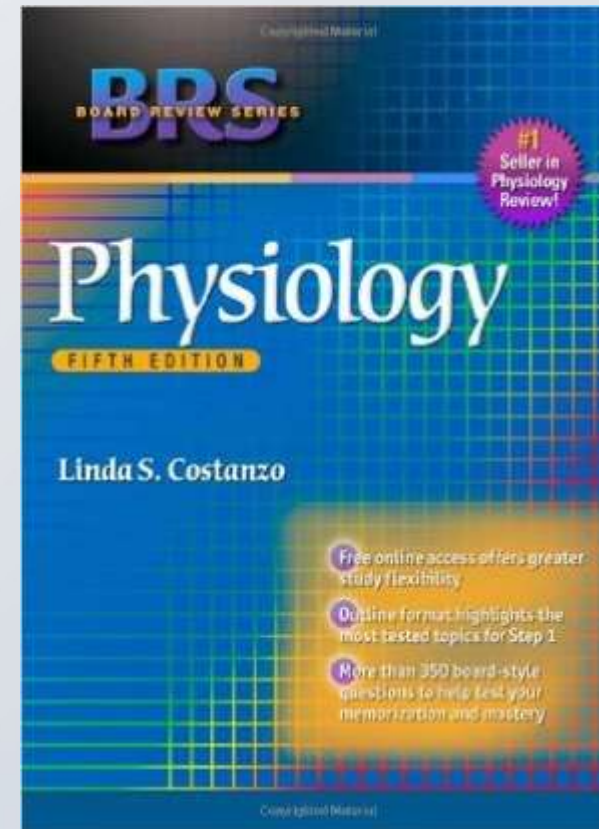
- Essential
- Pathways and metabolites
(in the context of diseases)



www.amazon.com

BRS Physiology

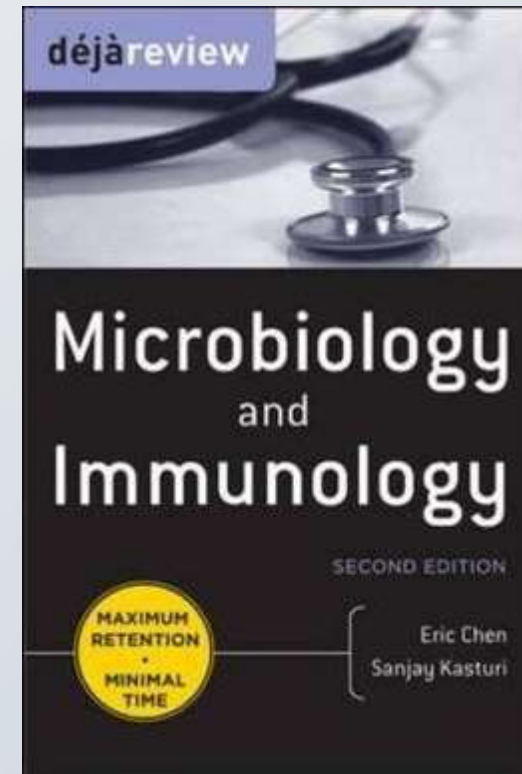
- More about understanding basic concepts



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Deja Review Microbiology and Immunology

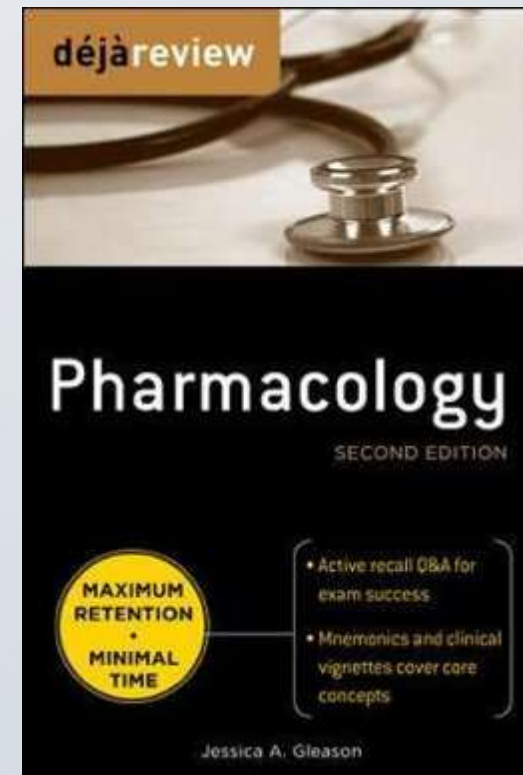
- detailed but essential
- question/answer format



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Deja Review Pharmacology

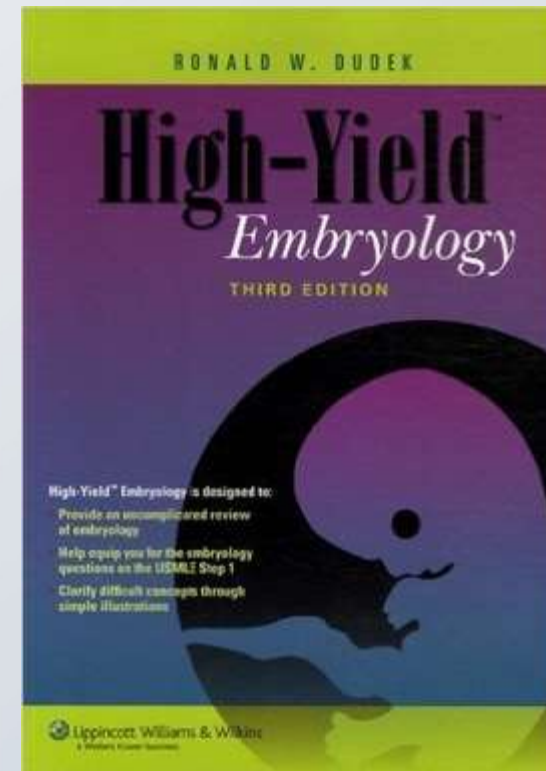
- question/answer format



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High-Yield Embryology

- strongly recommended



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Question bank: UWorld

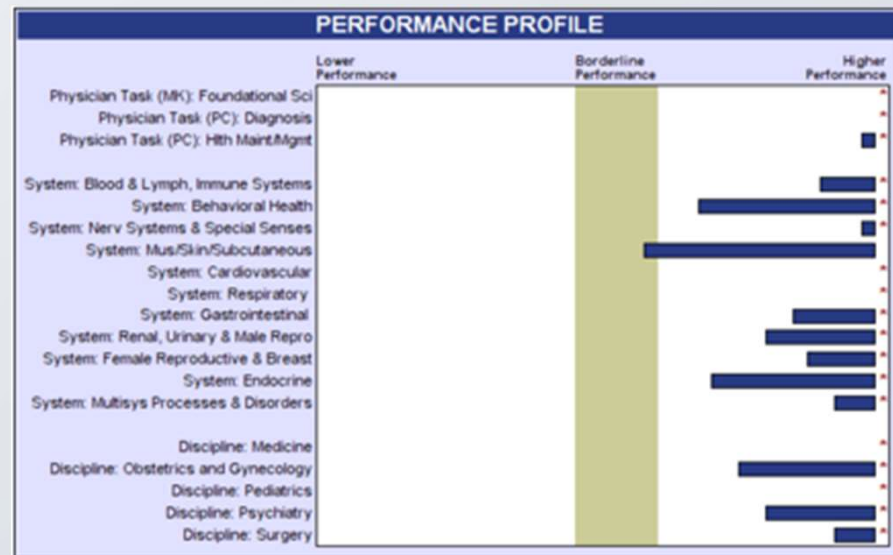
- ESSENTIAL
- >2.500 questions + detailed explanations
- Exam surface
- Test simulation (self-assessment tests)
- 129\$ – 219\$ (time period dependent)



www.uworld.com

NBME self-assessment tests

- ESSENTIAL
- 7 self-assessment tests
- Exam surface
- illustrates your progress
- Overview report
- 60\$ / test



Thank you for your attention!