

### Dedicated Study Plan – Step 1

Class of 2025

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### General Guideline vs Individual approach

- Everyone is different and at different stage of preparedness
- Feel free to individualize this approach that suits your need
- All are welcome to have one to one meeting if you need help in customizing this approach
- All are welcome to have one to one meeting if you run into some challenge during prep time
- danadkat@tulane.edu
- Office # 530C OME, 5<sup>th</sup> floor, Murphy
- Zoom: Personal Meeting ID 766 799 2136

#### Overview

- 1. Step 1 Outline, System & Subject distribution
- 2. CBSSA Overview
- 3. CBSSA Report Analysis/Interpretation
- 4. "Dedicated Time" Planning based on CBSSA report
- 5. Simulated Step 1: Practice test (@280 Q)
- 6. Stress Mgt & Test Anxiety
- 7. Other resources

### Step 1

- https://www.usmle.org/step-exams/step-1
- 280 MCQ 8 hours
- 7 blocks of 60 min + Total 45-60 min break time
- 40 or less Q per block about 90 sec per question
- Once exit a block Can't review or edit answers
- MCQ One best choice, No negative point for wrong answer so don't leave any blank!

#### Table 1: Step 1 Test Content Specifications\*

System	Range, %
General Principles**	12–16
Blood & Lymphoreticular/Immune Systems	7–11
Behavioral Health & Nervous Systems/Special Senses	9–13
Musculoskeletal, Skin & Subcutaneous Tissue	6–10
Cardiovascular System	5–9
Respiratory & Renal/Urinary Systems	9–13
Gastrointestinal System	5–9
Reproductive & Endocrine Systems	9–13
Multisystem Processes & Disorders	6–10
Biostatistics & Epidemiology/Population Health	4–6
Social Sciences: Communication and Interpersonal Skills	6–9

<sup>\*</sup> Percentages are subject to change at any time.

<sup>\*\*</sup> The Step 1 General Principles category includes normal and abnormal processes that are not limited to specific organ systems.

#### Table 3: Step 1 Discipline Specifications\*

Discipline	Range, %
Pathology	44–52
Physiology	25–35
Pharmacology	15–22
Biochemistry & Nutrition	14–24
Microbiology	10–15
Immunology	6–11
Gross Anatomy & Embryology	11–15
Histology & Cell Biology	8–13
Behavioral Sciences	8–13
Genetics	5–9

<sup>\*</sup> Percentages are subject to change at any time.

# How do I know if I am ready for Step 1

CBSSA for Readiness = Gold standard

### How do I best prepare for Step 1

CBSSA as Diagnostic tool = to identify strong and weak areas

To strategize the prep time

### CBSSA for Diagnosis

- Feb 27-March 3, 2023
- Voucher provided for taking CBSSA as diagnostic tool
- 7 versions available
- Recommend to take version FORMS 25, 26, 27, 28, 29, 30, 31(latest)
- 200 Q 50q x 4 blocks
- 5 hours 1hr:15min for each block (90 sec/Q)
- Testing mode (<u>Std paced/Accommodation paced</u> required)

 So, results can be used to plan for "preparation" in a realistic way (identifying your strengths and weaknesses)

COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA)
EXAMINEE PERFORMANCE REPORT



Name: Student A Test Date: 5/1/2022

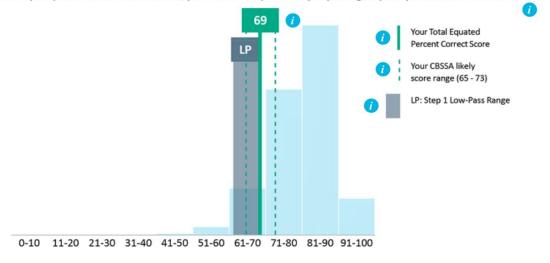
#### Total Equated Percent Correct Score: 69% (1)



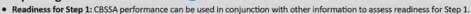
BEGIN ROLLOVER
EXPLANATIONS HERE

The chart below represents the performance of a 2020 national cohort of students from LCME-accredited medical schools. Your score is shown along with a range that corresponds to low passing performance (above but near the passing standard) on the United States Medical Licensing Examination® (USMLE®) Step 1.

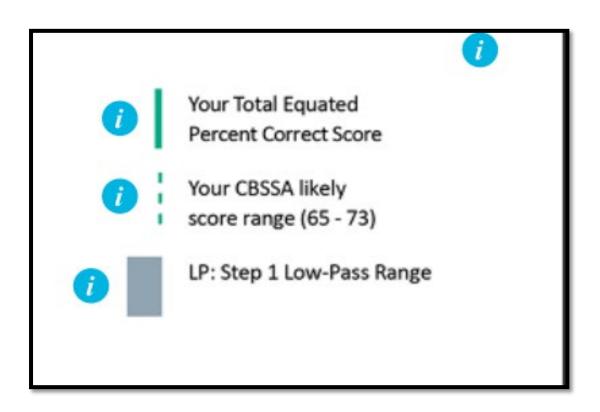
Based on your performance on this CBSSA, your estimated probability of passing Step 1 if you test within a week is 97%.



#### Interpreting Your Overall Results: 1



- Your CBSSA equated percent correct score represents the percentage of the content that you have mastered. It has been statistically adjusted to
  account for slight variations in exam form difficulty and may be slightly lower or higher than the actual percentage of questions you answered
  correctly on this specific form.
- Your estimated probability of passing Step 1 is calculated using a statistical model based on examinees who tested within one week of taking Step 1 for the first time. If you tested more than a week before you are scheduled to take Step 1, your estimated probability may be different. Your estimated probability is not a guarantee of your future Step 1 performance. Many factors (e.g., changing levels of knowledge) may impact your performance on Step 1.
- Your likely score range indicates how much your score could change if you tested again without learning or forgetting. Under those conditions, your CBSSA score would fall within 4 points of your current score two-thirds of the time.
- A PDF version of your report is typically available within 4 hours. To review your score before then, log in to MyNBME, click on the registration ID associated with this assessment, then click Review Your Results Interactively.



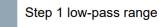
#### CBSSA for Readiness

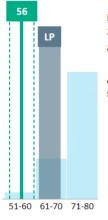
- CBSSA best tool for readiness assessment
- CBSSA lowest possible step 1 passing @ 61% in CBSSA
- Target score of CBSSA -> 70
   (61 + 4 point variability + 5 point safety factor)
- https://www.nbme.org/sites/d efault/files/2023-02/CBSSA Guidance.pdf

#### **GUIDANCE BY SCENARIO**

Your total equated percent correct score

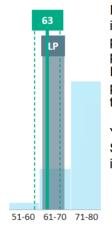
Your CBSSA likely score range





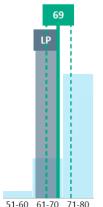
If your CBSSA likely score range is completely below the Step 1 low-pass range, you are at risk of failing Step 1.

Additional preparation is strongly recommended.



If your CBSSA likely score range is partly below the Step 1 low-pass range, your CBSSA performance is borderline. It is unclear whether your level of performance falls below or within the Step 1 low-pass range.

You may still be at risk of failing Step 1, and additional preparation is strongly recommended.



If your CBSSA likely score range is partly within and partly above the Step 1 low-pass range, your level of performance is still close to the minimum performance level required to pass Step 1.

Additional preparation is recommended.



If your CBSSA likely score range is completely above the Step 1 low-pass range, you are likely ready to take Step 1.

Please remember that CBSSA performance is not a guarantee of future Step 1 performance because many factors (e.g., changing levels of knowledge) may impact your performance on Step 1.

COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA)
EXAMINEE PERFORMANCE REPORT



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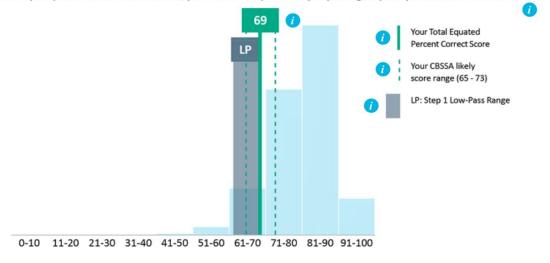
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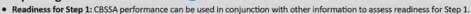
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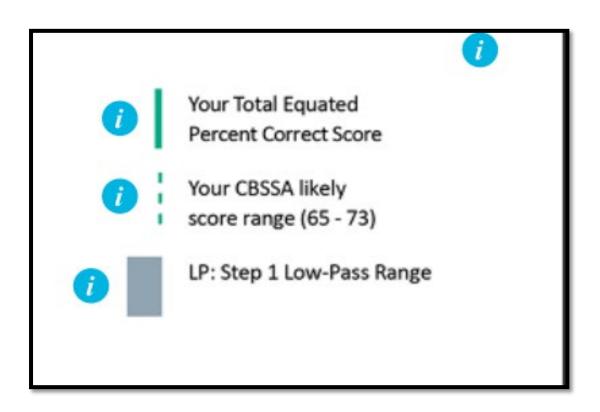
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### COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA) EXAMINEE PERFORMANCE REPORT



Name: Student A Test Date: 5/1/2022

Repo	ort			
By	Sy	/S	te	m

	Your EPC Score	Comparison Group Average EPC Score	Score Comparison: Lower Same Higher	% of Items
Performance by System (i)				
General Principles	68	78		12-16%
Behavioral Health & Nervous Systems/Special Senses	61	80		9-13%
Reproductive & Endocrine Systems	61	81		9-13%
Respiratory and Renal/Urinary Systems	72	79		9-13%
Blood & Lymphoreticular and Immune Systems	69	81		7-11%
Multisystem Processes & Disorders	73	82		6-10%
Musculoskeletal, Skin, & Subcutaneous Tissue	88	82		6-10%
Cardiovascular System	59	79		5-9%
Gastrointestinal System	77	80		5-9%
Biostatistics & Epidemiology/Population Health	56	80		4-6%

COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA)
EXAMINEE PERFORMANCE REPORT



Name: Student A Test Date: 5/1/2022

### Report By Discipline

	Your EPC Score	Comparison Group Average EPC Score	Score Comparison: Lower Same Higher	% of Items
Performance by Discipline (i)				
Pathology	72	81		44-52%
Physiology	74	80		25-35%
Microbiology & Immunology	67	81		16-26%
Biochemistry & Nutrition	75	81		14-24%
Pharmacology	87	83		15-22%
Gross Anatomy & Embryology	62	76		11-15%
Behavioral Sciences	82	87		8-13%
Histology & Cell Biology	73	78		8-13%
Genetics	69	80		5-9%
Genetics	09	80		3-9%

### Rank order by System

#### **NBME® SELF-ASSESSMENTS**

### COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA) EXAMINEE PERFORMANCE REPORT



Name: Student A Test Date: 5/1/2022

		Your EPC Score	Comparison Group Average EPC Score	Score Comparison: Lower Same Higher	% of Items
	Performance by System (i)				
6	General Principles	68	78		12-16%
7	Behavioral Health & Nervous Systems/Special Senses	61	80		9-13%
8	Reproductive & Endocrine Systems	61	81		9-13%
4	Respiratory and Renal/Urinary Systems	72	79		9-13%
5	Blood & Lymphoreticular and Immune Systems	69	81		7-11%
3	Multisystem Processes & Disorders	73	82		6-10%
1	Musculoskeletal, Skin, & Subcutaneous Tissue	88	82		6-10%
9	Cardiovascular System	59	79		5-9%
2	Gastrointestinal System	77	80		5-9%
10	Biostatistics & Epidemiology/Population Health	56	80		4-6%

Highest weight

Select strongest system With highest priority system

#### **Highest Priority**

7

7

6

8

4

5

strongest



1

9

2

10

#### **NBME® SELF-ASSESSMENTS**

### COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA) EXAMINEE PERFORMANCE REPORT



Name: Student A Test Date: 5/1/2022

	Your EPC Score	Comparison Group Average EPC Score	Score Comparison Lower Same High	
Performance by System (7)				
General Principles	68	78		12-16%
Behavioral Health & Nervous Systems/Special Senses	61	80		9-13%
Reproductive & Endocrine Systems	61	81		9-13%
Respiratory and Renal/Urinary Systems	72	79		9-13%
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Highest weight

Rank order by Discipline & Rank order by High Priority Discipline

#### **NBME® SELF-ASSESSMENTS**

COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA)
EXAMINEE PERFORMANCE REPORT



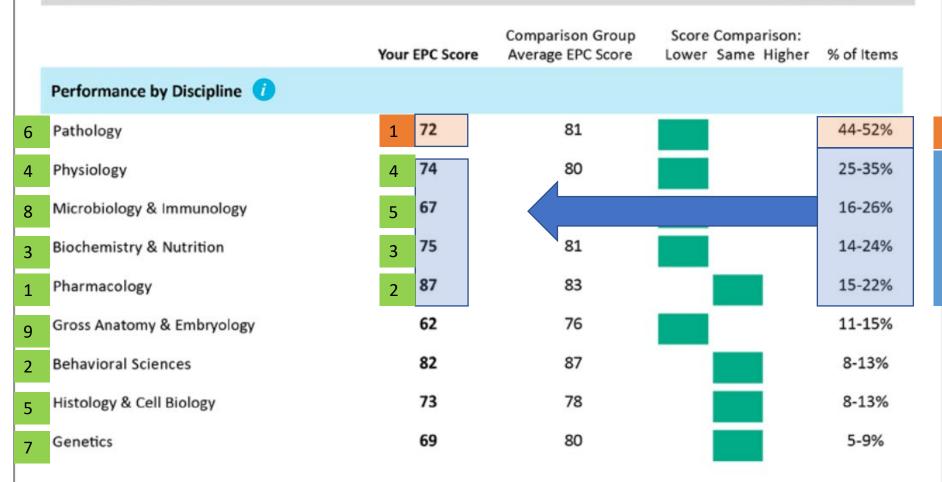
**Highest Priority** 

High

Priority

Disciplines

Name: Student A Test Date: 5/1/2022



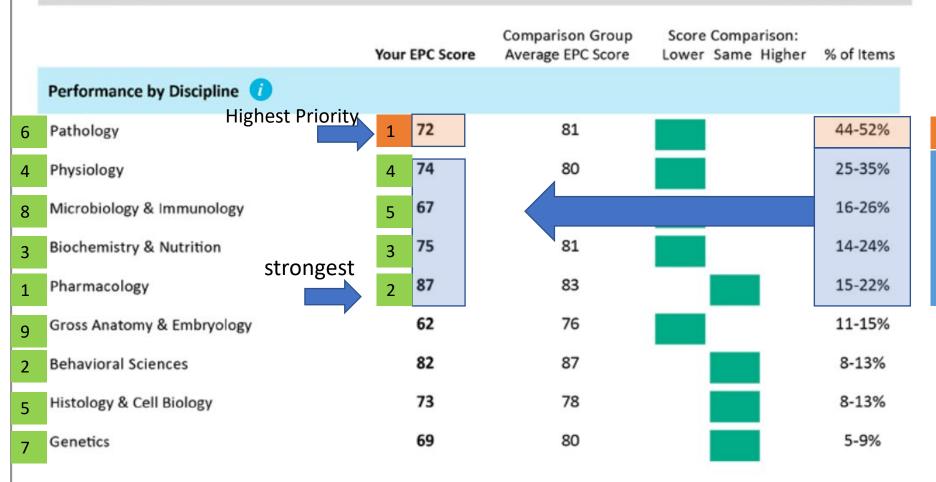
Select strongest discipline with highest priority discipline

#### **NBME® SELF-ASSESSMENTS**

COMPREHENSIVE BASIC SCIENCE SELF-ASSESSMENT (CBSSA)
EXAMINEE PERFORMANCE REPORT



Name: Student A Test Date: 5/1/2022



**Highest Priority** 

High Priority Disciplines

### Study Plan – 2 elements

1. Scheduling

2. Resource

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	Today	28	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	Step 1	19	20	21	22

### Scheduling

- Date for step 1
- Blocking day/time slots for life events
- Blocking 2 half days or 1 full day every week for rest
- Blocking buffer days.
- Blocking days for practice test CBSSA or other (shelf) & blocking time for review of incorrect questions on test
- Blocking day for simulation test a week before Step 1 date
- Count available days/hours
  - Questions/blocks distribution/review incorrect answers/review high yield material

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	Today	28 CBSSA Diagnostic test	1	2	3	4
<sup>5</sup> Rest ½ D	6	7	8 Rest ½ D	9	10	11
1 Rest ½ D	13	Test review	15	16	17	Rest Day
19	20	21	Rest ½ D	23	24	25
Rest ½ D	27	CBSSA Test review	29	30	Family event	1
2	3	4	Rest ½ D	6	7	8
9	Rest ½ D	SIM test	Test review	13	14	15
16	Rest Day	Step 1	19	20	21	22

### Creating sample weekly schedule

- Block times for basic important activities
  - Sleep, personal hygiene, food etc.
  - Exercise (yoga, gym, running, walking etc. at least 20 mins 3-4 times a week)
  - Block 10-15 mins daily for some kind of relaxation / meditation practice
  - Anything else that you may need to relax and unwind daily

Keep a buffer time (few hours to half day) every 3-4 days at least to begin with that can help you catch up with your schedule if you fall behind for whatever reason. Also block rest day.

Now finally plan your study time which includes 1) practice questions, 2) learning from incorrect answers, and 3) rapid review of high yield information on a daily basis (more about this later).

Make sure to have multiple small breaks between study sessions.

### Resources for Step 1



#### **Primary**

- U-World Learning Tool
- First Aid Learning Resource
- Flash Cards: Make your own,
   U World, Anki, ETC
- U-World Assessment Evaluation
- NBME Practice tests: Assessment

#### **Secondary**

- Pathology : Rapid Review or Pathoma
- Physiology: BRS
- Micro Biology Sketchy Micro
- Pharmacology Anki, Osmosis

### <u>U-world questions</u>

- No of questions to be aimed at least 75% @ 2700 in UWorld
- Timed Vs Tutor mode
  - Tutor mode:

Immediate feedback

Not practicing test day timing

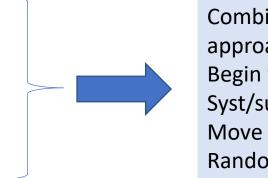
• Timed mode:

Practicing test day timing

Delayed review of questions

Recommended

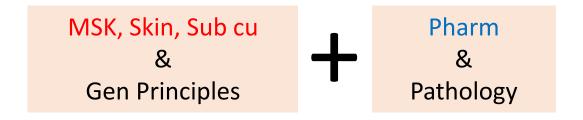
- Questions based on Sub/System Vs Random
  - Subject/System
    - See all diseases for a topic at once
    - Doesn't simulate exam day
  - Random topics
    - Mimics actual exam



Combination approach...
Begin with Syst/sub...
Move towards Random

#### Begin in U-world with following combination

- Combine 1 strongest system with Gen Principles
- Combine 1 strongest subject with Pathology



### How to make progress using Uworld Q-bank

- Start with 2 blocks (40-Q each) daily
- In Q set always include General principles + 1 strongest system & Pathology + 1 strongest subject
- Once the score is 55% correct, add another subject. Do this until all subjects are in the question set.
- Next add another system. Continue to add systems when the last set is at 55% or better.
- Once all systems are in the question bank begin doing random Q and try to do 3 blocks (120 question)
- Then about 5 days later add another block if possible.

### Recap

- So far we have understood
  - Blocking events on your calendar between now and step 1
  - Creating sample weekly schedule
  - Rank ordering systems and disciplines based on your individual score
  - Selecting high priority and strongest system and discipline to begin with
  - Incorporating all systems and disciplines

### Core elements of a Step 1 dedicated plan

- Questions (block) in timed mode
- Processing of wrong questions to extract high yield material
- Rapid, high repetition, high yield reviews of previous wrong questions

 5-20% time for "non-Q based" topic review (from secondary resources)

#### Begin in U-world with following combination

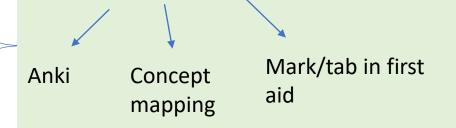
- Combine 1 strongest system with Gen Principles
- Combine 1 strongest subject with Pathology

MSK, Skin, Sub cu & Gen Principles



Pharm & Pathology

- 1 block of 40 question
- Review wrong answers
  - U-world explanation & Extract "high yield"



 Rapid repetition of previously extracted "high yield" on daily basis

## Defining High Yield: What do multiple choice question exams measure?

- A. Your level of knowledge
- B. Your understanding of a topic
- c. Your ability to become a competent physician
- D. Your ability to choose the correct answer choice out of multiple answer choices

## Defining high yield: What do multiple choice question exams measure?

- A. Your level of knowledge
- B. Your understanding of a topic
- c. Your ability to become a competent physician
- D. Your ability to choose the correct answer choice out of multiple answer choices

## Processing of wrong questions to <u>extract high</u> <u>yield</u> material

#### **Definition of High Yield**

- Anything that allows you to choose the correct answer
- Anything that allows you to not choose the incorrect answer

#### Tool

- Comparative answer choice analysis (CACA) 1-3

Rationale for focusing on wrong questions only

- Objective evidence of weakness
- Avoiding cognitive overload
- Difficult to self assess<sup>4-5</sup> level of guessing/uncertainty especially with stress of Step 1 prep

40 Q Block CACA (5min/Q) 60 min 40-120 min

40 Q Block CACA (5min/Q) 60 min 40-120 min

40 Q Block 60 min CACA (5min/Q) 40-120 min Review previous days' High Yield material 40 Q Block 60 min

CACA (5min/Q) 40-120 min

40 Q Block 60 min CACA (5min/Q) 40-120 min Review previous days' High Yield material 40 Q Block 60 min CACA (5min/Q) 40-120 min

40 Q Block 60 min CACA (5min/Q) 40-80 min Review previous days' High Yield material

40 Q Block 60 min

CACA (5min/Q) 40-80 min

40 Q Block 60 min CACA (5min/Q) 30-60 min

Review previous days' High Yield material

40 Q Block 60 min CACA (5min/Q) 30-60 min

40 Q Block 60 min CACA (5min/Q) 30-60 min

### Simulated exams to build cognitive stamina, process for test day

- Timing, format of Step 1 exam
   7 x 40 question blocks with 1 hour per block
   45 minutes of break time
  - - Extra break time for finishing early/skipping 15 minutes tutorial
      Extra break time for finishing question blocks early

#### Purpose

- Cognitive stamina
- Practicing timing
- Practice break use, bathroom use, food/drink, etc

Can be combined with NBME or private company self assessments

- Sim exam with 200Q from NBME self assessment and 80Q from bank
- Sim exam with 160Q from private company self assessment + 120Q from bank

### General Guideline vs Individual approach

- Everyone is different and at different stage of preparedness
- Feel free to individualize this approach that suits your need
- All are welcome to have one to one meeting if you need help in customizing this approach
- All are welcome to have one to one meeting if you run into some challenge during prep time
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### Stress Mgt and Test Anxiety

#### Combat **burnout** to optimize Step 1 outcome

#### During Step 1 dedicated study time<sup>1</sup>

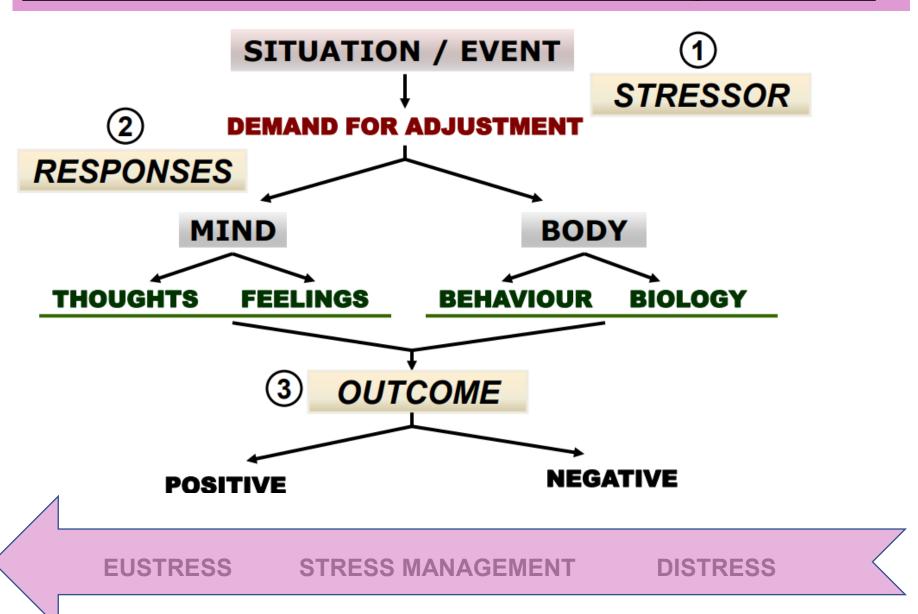
- 71% of students reported feeling burned out weekly or more often
- 52% of students reported feeling depressed weekly or more often

Burnout decreases cognitive function<sup>2-4</sup>

#### Scheduling elements

- Is your daily schedule realistic?
  - Cutting back on sleep will affect memory<sup>5</sup>
  - Enough break time in daily schedule to be sustainable?
- Is your overall schedule realistic?
  - Enough days off to avoid harmful burnout?
- Accounted for known life events?
- Rest day/light studying day before taking exam to optimize cognitive function?

#### What is stress and stress management?



#### From Stress response to



Relaxation response to



Resilience building

# STIMULUS RESPONSE Freedom to choose

#### Foundations of Resilience Building

- Nutrition
- Sleep
- Exercise
- Socializing
- Laughter
- Being kind to yourself
- Gratitude
- Building Relaxation response

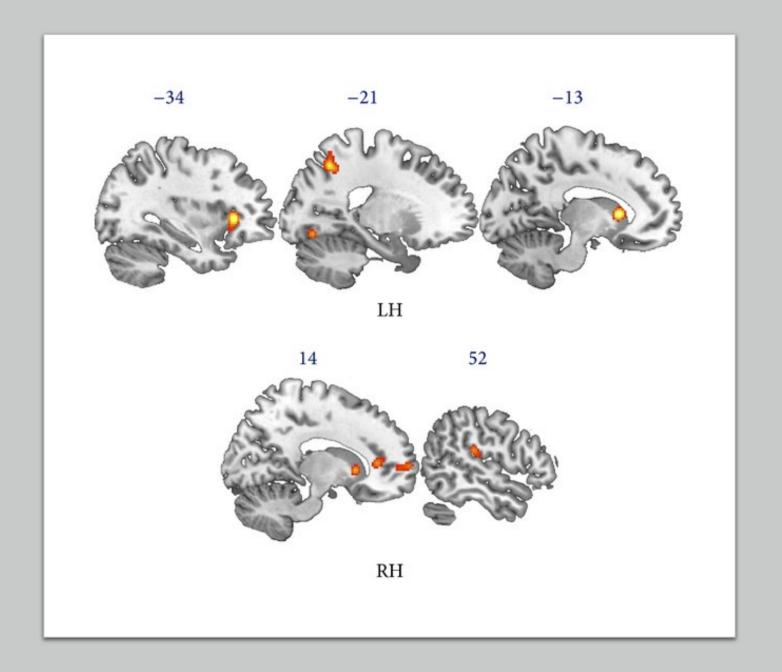
#### Neuroplasticity & Meditation - Research

Increased neurogenesis (creation of new neurons including gray matter) 1-5

- brain's frontal cortex (the part of the brain associated with decisionmaking and logical thinking)
- sensory cortices (the part of the brain associated with sensing, feeling, noticing),
- hippocampal formation (the part of the brain associated with memory
- anterior cingulate (the part of the brain associated with attention),
- insula (the part of the brain associated with gut-responding),
- decreased activity and reduced gray matter in the amygdala (the part of the brain associated with fear)

## fMRI of Brain in meditators

Hardcore
 Neuroimaging
 (fMRI) data
 available on
 meditation
 practice and
 neuroplasticity



# Neuroplasticity and Meditation – My Professional Experience (since 2007)

- Combining learning intervention with meditation practice = Much better outcome
  - Reduction in generalized anxiety
  - Increase in daily productivity
  - Increase in self control and self regulation
  - Increase in retention and recall
  - Decrease in testing anxiety
  - Improved test score

### Neuroplasticity and Meditation – TUSOM students'

### feedback (from Phase 1, 2, 3, and 4 Students, 2023)

- It's strange how those of us on track to become doctors forget what we know about the nervous system when it comes to ourselves. We are tested on how the autonomic nervous system works, but we don't use it to our own advantage. Dr. Anadkat has helped me start to incorporate nervous system regulation into my routine. Taking 10 minutes each day to just breathe, and (try my hardest) to not think about anything has expanded my ability to be mindful during times I feel myself getting stressed and frustrated while studying or in class.
- As a student who experiences bouts with anxiety, hearing that Dr. Anadkat was willing to create a safe space where we can objectively observe what is working and what is not did wonders for my self-esteem. Unsurprisingly, she stayed true to her word during every session we worked together, which boosted my confidence.
- Based on all the commentary about how medical school was challenging, I was at a point where I internalized that having high levels of anxiety every day was a regular part of becoming a physician. Although Dr. Anadkat is not the first person I ever shared these sentiments with, she is one of the few to validate my feelings and offer to actively resolve these issues with me by incorporating relaxation and meditation techniques during our sessions. She also gave me an audio recording for progressive muscular relaxation and another for breathing awareness. These recordings are helpful because they feel personalized and are from someone I know and trust, making it easier to follow along regularly.
- Everything we did helped so much with both test-taking and the test day experience. It was completely different than test-taking in the past I slept a bit better, was more calm before and during (the test), had more confidence, and separating into blocks of questions with meditation and breathing before allowed me to actually finish the exam on time and without my brain collapsing.
- Since I left your office, I have been breathing more deeply than I have in such a long time. And I have been able to tap into the stillness I need throughout the day. My studying has dramatically improved too. Yesterday I did well on my U-World blocks just because I was calm as I approached each question.
- I especially appreciate the breathing sessions that you find time to do in our meetings. Discussing study schedules and AMBOSS results can be very stressful conversations, yet by taking a break at the end or middle of the meeting to do a mindfulness session can help drastically. It allows me to leave the meeting with a sense of calmness and helps my anxiety/stress feel manageable. It has encouraged me to practice mindfulness on my own at home, and I think it is overall making a difference.
- Learning relaxation techniques gave me the ability to get out of my own way and believe that I could succeed. When your brain is in fight or flight because of test anxiety, the complex thinking needed to pass a STEP exam is inaccessible, even if you have practiced and know the content well. Having tools to help me keep my composure helped me bring my best to every question, and that contributed to my success.

### Practice

- Guided meditation to induce "relaxation response"
- Free resource <a href="https://www.calm.com/resources">https://www.calm.com/resources</a>

#### Weekly Group meetings for

Stress Mgt Practice

Test Anxiety Mgt



Zoom

- Mindfulness Relaxation / Meditation practice
  - Focus, Concentration, Memory, Confidence, Gratitude etc.

In Person

Zoom

- Multistep Sequential training for test anxiety inoculation
  - Breath-awareness, PMR, Neutral imagery, specific visualization for test day

#### Acknowledgement

- Michael Terao, MD, Med, Georgetown University School of Medicine
- John W. Pelley, PhD, MBA, Texas Tech Univ. HSC.