

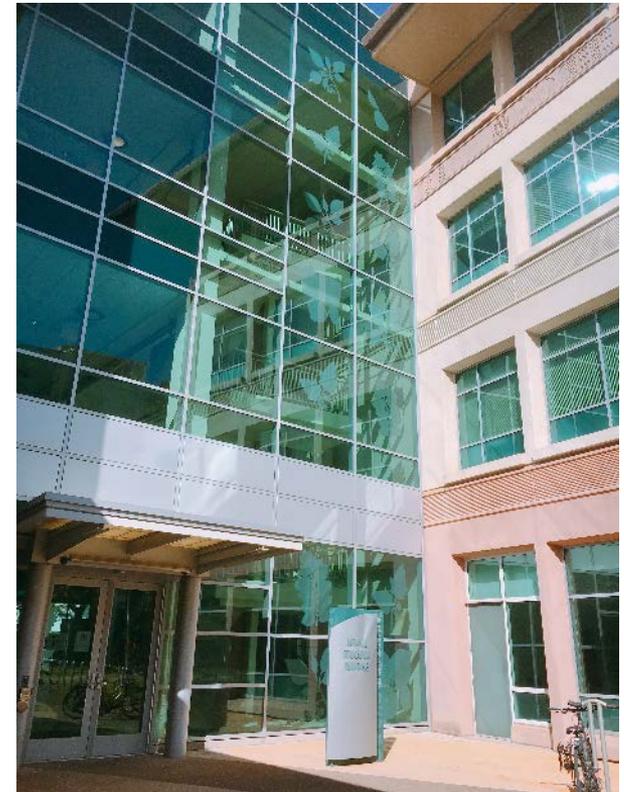


Summer Medical Education Institute University of Hawaii

Chiaki Kawamoto
6th-year, School of Medicine

About this program

- University of Hawaii
 - John A. Burns School of Medicine (**JABSOM**)
- August 20-24, 2018
- Participants: 27 medical students from Japan



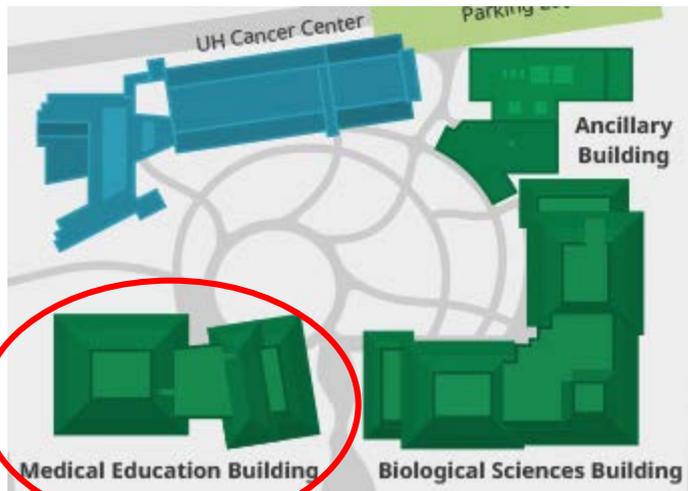
University of Hawaii, JABSOM



- Located at the center of Kaka'ako waterfront on the island of O'ahu, Hawaii, USA
- School's vision: **A.L.O.H.A.**
 - Attaining Lasting Optimal Health for All
- Focusing on PBL education



University of Hawaii, JABSOM



- Rich in nature
- Without a university hospital
- Cancer center of National Cancer Institution is placed



Program contents

- 9 a.m.- 3 p.m.
- The basic principles of Problem Based Learning (PBL)
- Physical examination focused through clinical reasoning
- Smoking cessation using medical English



←Welcome lunch with JABSOM students

People of JABSOM

↓ Professors always wearing an aloha shirt



↓ 10 JABSOM students as tutors for us



PBL... Problem Based Learning

- Small-group discussions of clinical cases
- A group consists of five to six students
- With one JABSOM student as a PBL group facilitator
- Part of the educational culture at JABSOM



PBL

- Step 1: Write out Facts/Problems, Hypothesis, Need to know, Learning Issues of a case
- Step 2: Choose learning issues and research individually
- Step 3: Reconvene in a group and re-analyze the case

Facts

- 63 year old male Filipino
- gradually increasing SOB
- Swelling in both feet

Hypothesis

- PE
- Heart failure
- Acute Resp Distress
- Medications
- Trauma
- Pneumothorax
- COPD
- Hepatic encephalopathy
- Lung cancer
- Good pastries
- Pneumonia
- Palm. fibrosis
- Pulmonary edema
- Asthma

Need to know

- x-ray - enlarged, palm edema
- onset
- duration - 3 months
- Characteristics - walking distance?
- Allergies?
- Occupation
- Alcohol/Smoking - no hx of smoking
- Drug use
- Family history
- Severity of SOB/swelling SOB is getting worse
- Alleviating/Aggravating factors - exertion
- Hospitalizations/Past surgeries
- Timing
- no chest pain
- Swelling in feet/ankles
- no hx of heart disease
- HTN - prescribed meds
- visibly tachypneic
- Denies fever, chills
- productive cough, wheezing

Heart exam

- S3? ✓
- Lungs - crackles
- Palpate swelling - 3+ pitting edema
- D-dimer
- BPT 145/90
- HR
- RR ↑ 25
- % O₂ ↓ 88%
- Vital capacity
- ECHO - Left ventricular ejection fraction 25%
- EKG - LVH, no ST elevation
- Antibiotics
- Renal function test normal
- Sputum exam
- JVD
- BNP is elevated - AMP
- PMI displaced downward and laterally
- Ramipril
- Spironolactone
- Carvedilol

Start

- IV furosemide
- morphine
- nitrates

Palm artery wedge pressure

- grade the HE
- NYHA

Learning Issues

- Process of swelling
- Causes of SOB
- Causes of swelling
- Assessment of SOB
- Process of orthopnea
- Paroxysmal nocturnal dyspnea
- Nocturia
- Treatment of Heart failure
- Acute vs chronic Heart failure
- New York Heart - Heart failure grading
- Pharmacology
- furosemide
- morphine
- nitrates
- Ramipril
- Spironolactone

4 - S3 heart sound

7 - BNP

- Pathophysiology of heart failure and edema
- Physician condolence letter
- Epidemiology of heart failure

PBL

➤ Advantages

- PBL improves a motivation for **self-directed learning**
- Clinical reasoning is a great way to prepare for clinical evaluation of patients.



➤ Disadvantages

- **Time-consuming**, not efficient
- Difficulty to cover all the medical fields only by PBL

➤ Regular PBL besides classroom lectures or practical training will be very effective.

Physical examination

- Cardiac Exam, Lung Exam
 - Take a basic history and perform a physical exam
- ↓ Listen to a speaking simulator's heart sound



↓ Practice room

Do a role play of listening to patient's lungs



Physical examination

↓ Work in pairs as doctors and patients



Examining the lungs

Questions you can ask patients about lung-related problems:

- Are you having difficulty breathing?
- If so, when does it happen? When you are active? When you are sitting down and resting? When you are lying down or sleeping?
- Do you smoke cigarettes?
- If so, how many cigarettes do you smoke a day? How long have you been smoking?
- Do you think you have a fever?
- Have you been coughing?
- Have you been wheezing?
- Have you ever had any lung problems before?
- Are there any lung problems in your family?

What you can say to your patient while you are listening to their lungs:

- "I'll be listening to you breathe."
- "You'll feel my stethoscope on your back."
- "Please take slow deep breaths through your mouth for me."
- "If you get tired or dizzy let me know, and we can stop."
- "Everything sounds great."
- "Thank you..."



Smoking cessation

- How to persuade patients to quit smoking
 - 5A's: Ask, Advise, Assess, Assist, Arrange follow-up
 - Patient-centered communication techniques
 - Medical interview to a simulated patient
- ↓ Use 5A's to JABSOM students playing smoking patients



Message for next students

- I recommend this program for the juniors
 - not confident with your English skills
 - want to try to study abroad for the first time
 - in lower grades
 - interested in American medical education



Acknowledgements

➤ I would like to express my gratitude for all of those who supported me at University of Hawaii and Yokohama City University.



➤ This program was supported by GUSHINKAI and KOUENKAI.



Thank you for Listening!

