The State of Clinical Exercise Physiology

Cemal Ozemek, PhD, ACSM-CEP, FACSM, FAACVPR, FCEPA

Director, Professional Doctor of CEP Program
Registered Clinical Exercise Physiologist
Clinical Associate Professor
University of Illinois at Chicago
ozemek@uic.edu

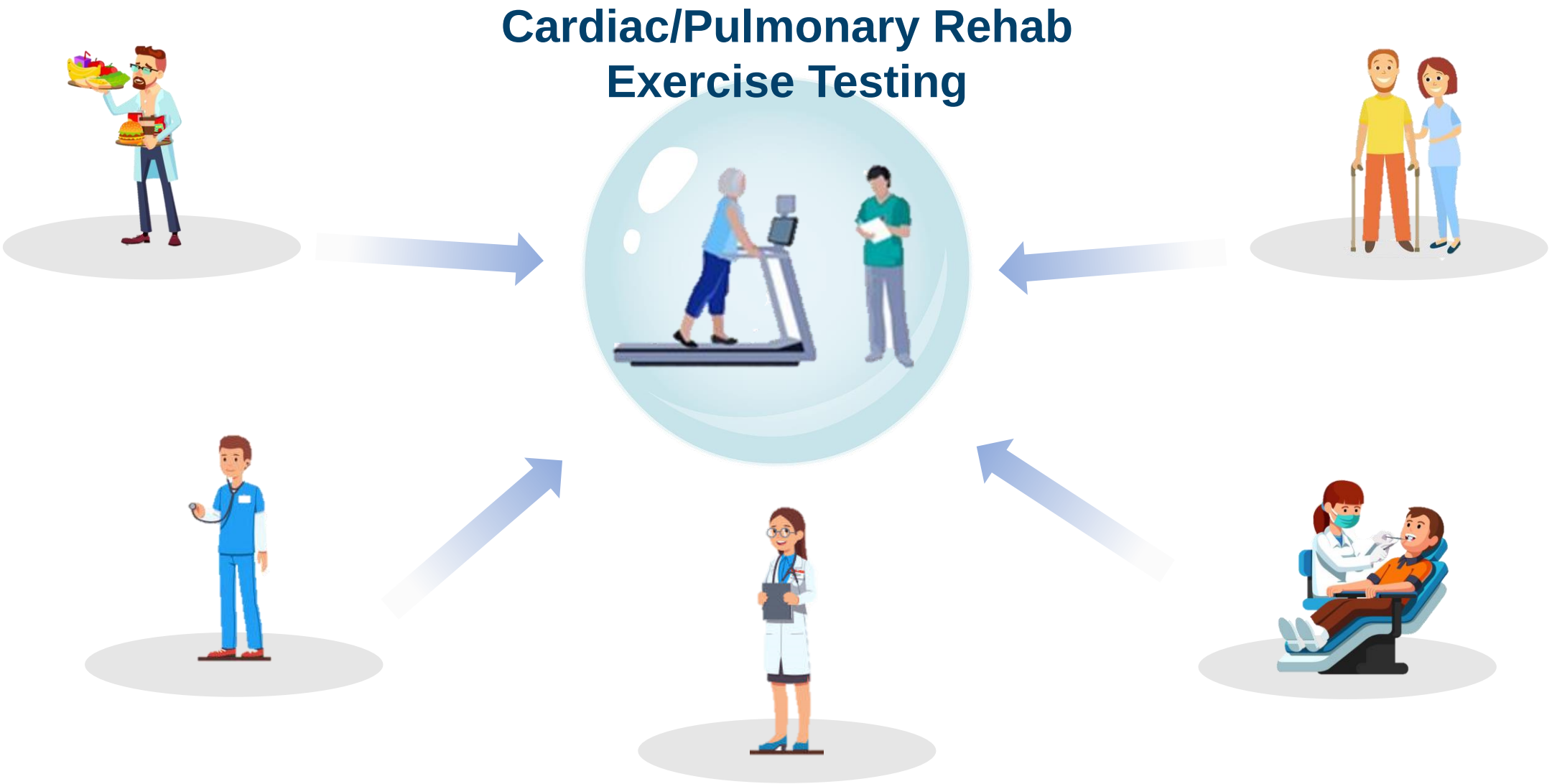
Outline

- Professionalization and current efforts
- Salary structure and compensation
- DCEP program vs. PhD in Exercise Physiology
- Advice for young CEPs in the clinical field

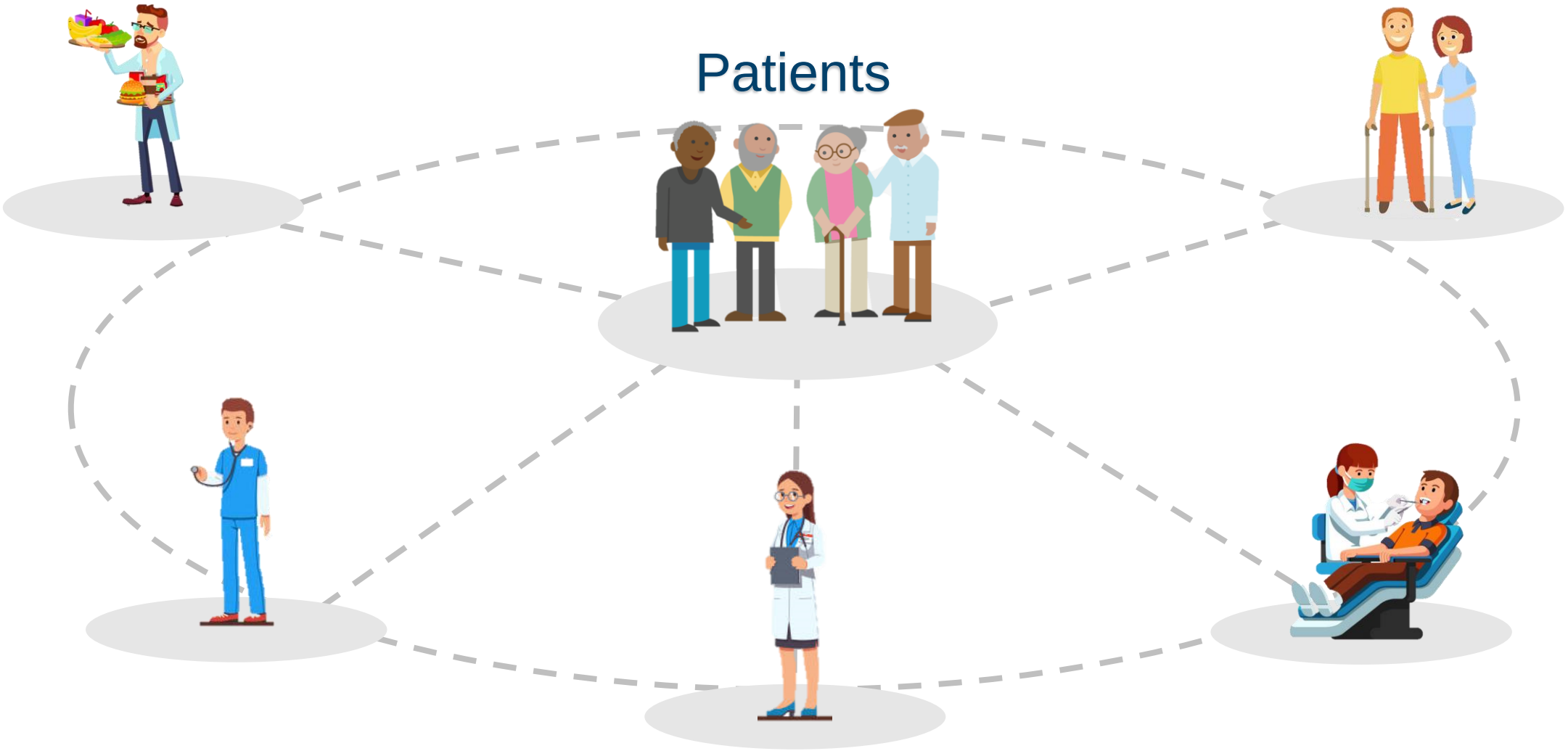
WARNING

This presentation contains information that may be disheartening with frustrating realities that CEPs face on a day-to-day basis. Audience members who are easily discouraged, or are not willing to advocate for the CEP field should quietly excuse themselves from this presentation.

Challenges Within the Field of CEP



Lack of Recognition



Qualified Healthcare Professional

Board/Licensure Exam

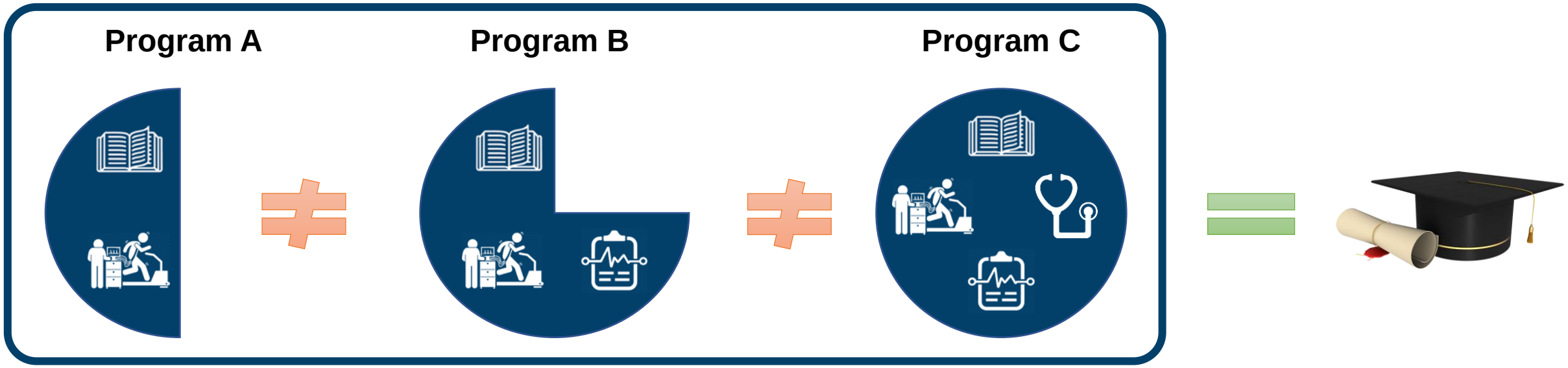
Clinical Rotations

Rigorous Coursework

Accredited Program

MD	Medical School
RN	Nursing Program
Physical Therapist	PT School
Dietitian	Dietetics Program
Dentist	Dental School
CEP	. . .?

CEP Training



Qualified Healthcare Professional (QHP)

An individual who is qualified by…

- *Education*
- *Training*
- *Regulation*
- *Facility privileging (when applicable)*

Performs a professional service within their ***scope of practice*** *and independently reports that professional service.*

Reimbursement Task Force

William E. Kraus, MD

Goals are to…

- be recognized QHP
- able to deliver exercise and healthy lifestyle counseling and supervision to patients (according to their *scope of practice*)
- able to bill and be reimbursed for their services.

CEPA
ACSM Affiliate Society

AMERICAN COLLEGE of SPORTS MEDICINE®
LEADING THE WAY

What is Required?

PROGRAMMATIC ACCREDITATION

PROFESSIONAL CERTIFICATION

CONTINUING COMPETENCE

PROFESSIONAL REGISTRATION

CAAHEP

ACSM CERTIFIED CLINICAL EXERCISE PHYSIOLOGIST

CEPA
ACSM Affiliate Society

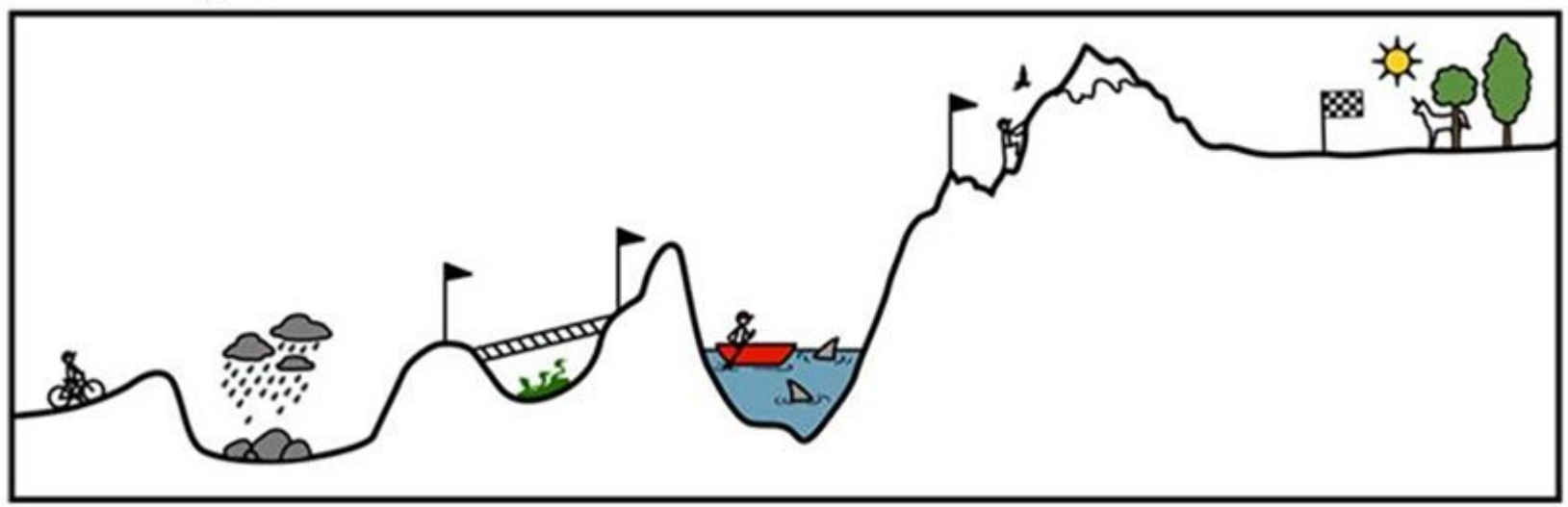
USREPS
US Registry of Exercise Professionals™

QHP Recognition

AMA

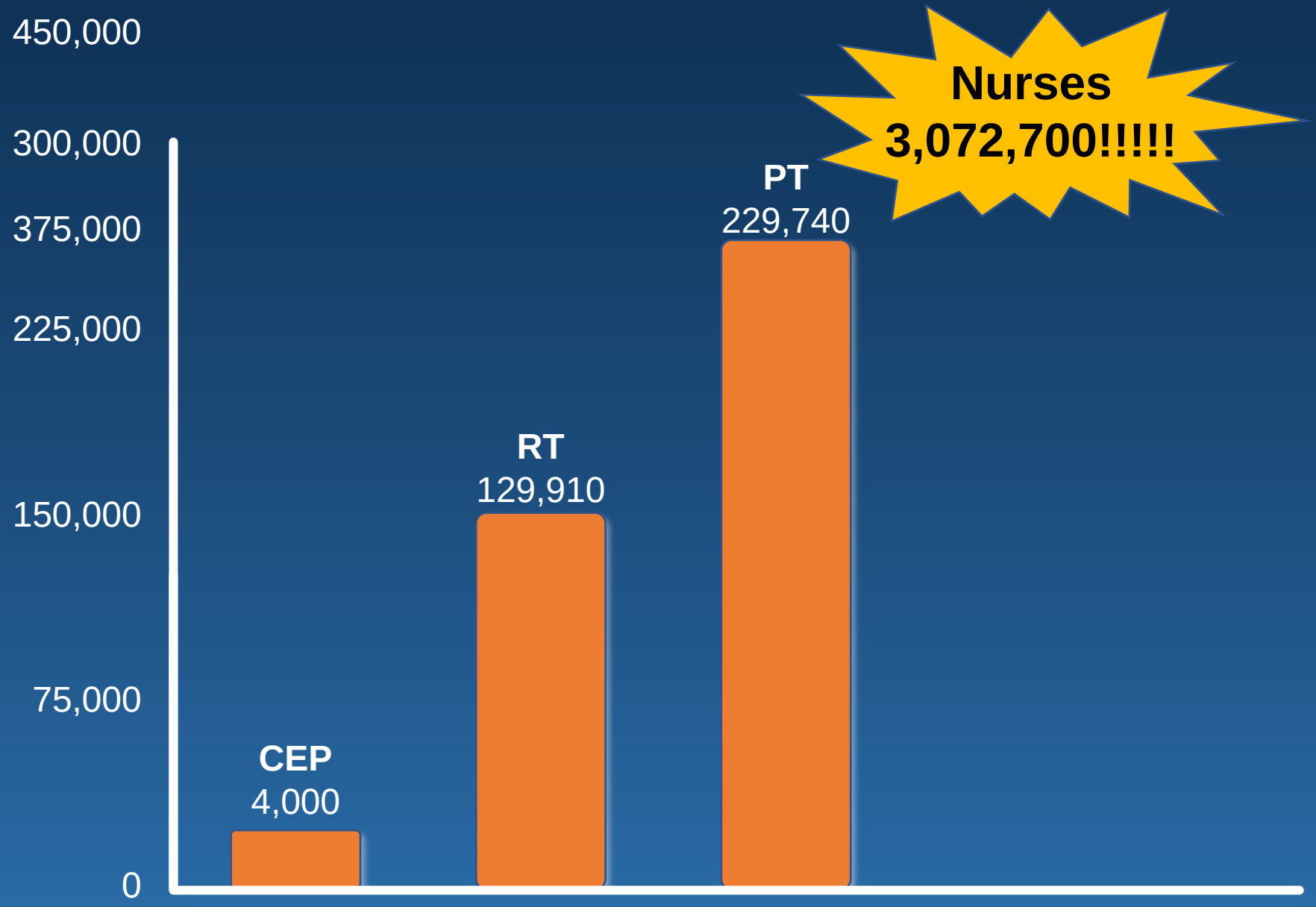
Professionalization Plan

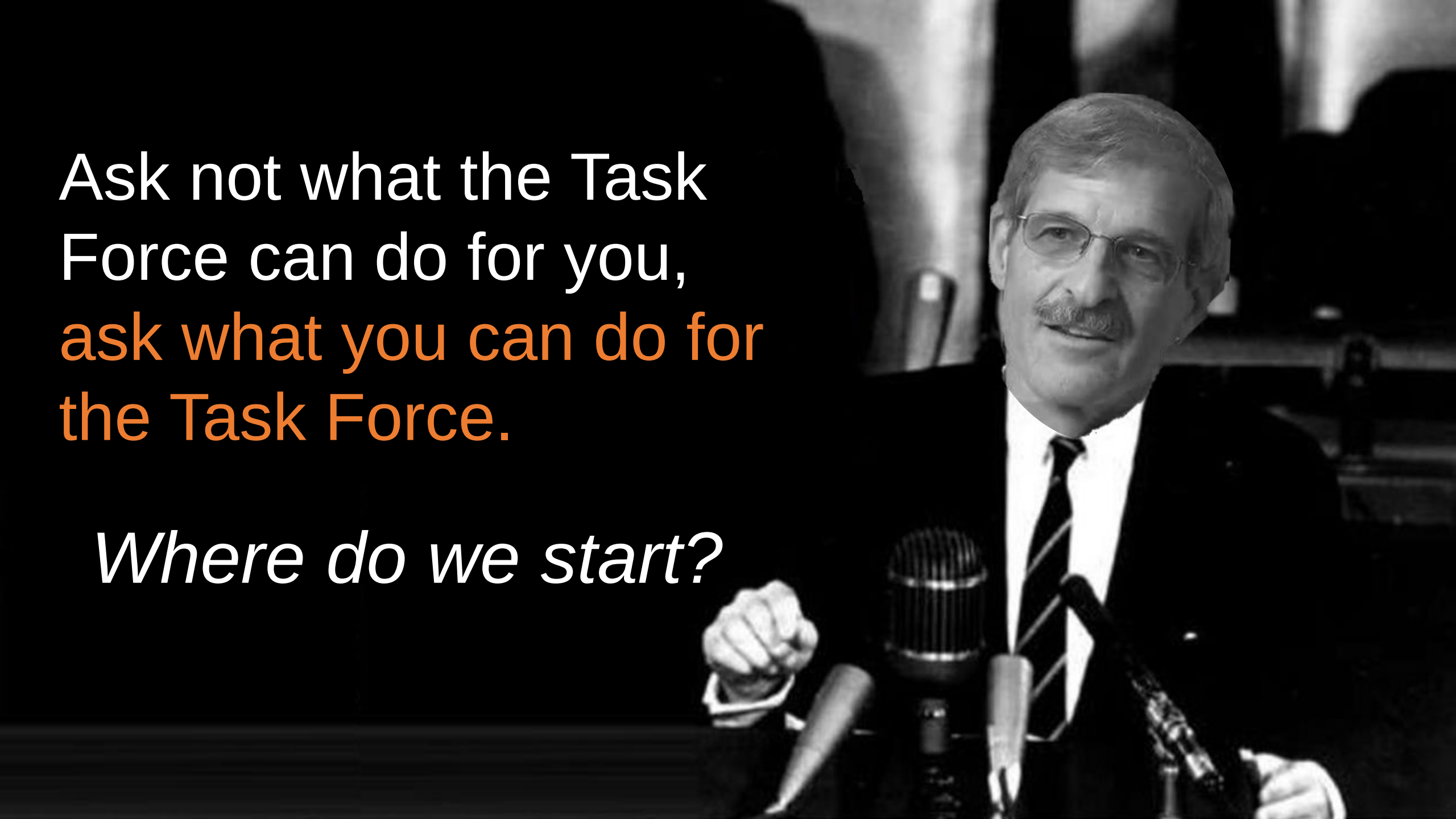
Reality



Accredited CEP Programs

Professional Prescence




Ask not what the Task Force can do for you,
ask what you can do for the Task Force.
Where do we start?

ACSM Certification

Official Notice of Proposed Revisions to CoAES Standards & Guidelines Read

CoAES

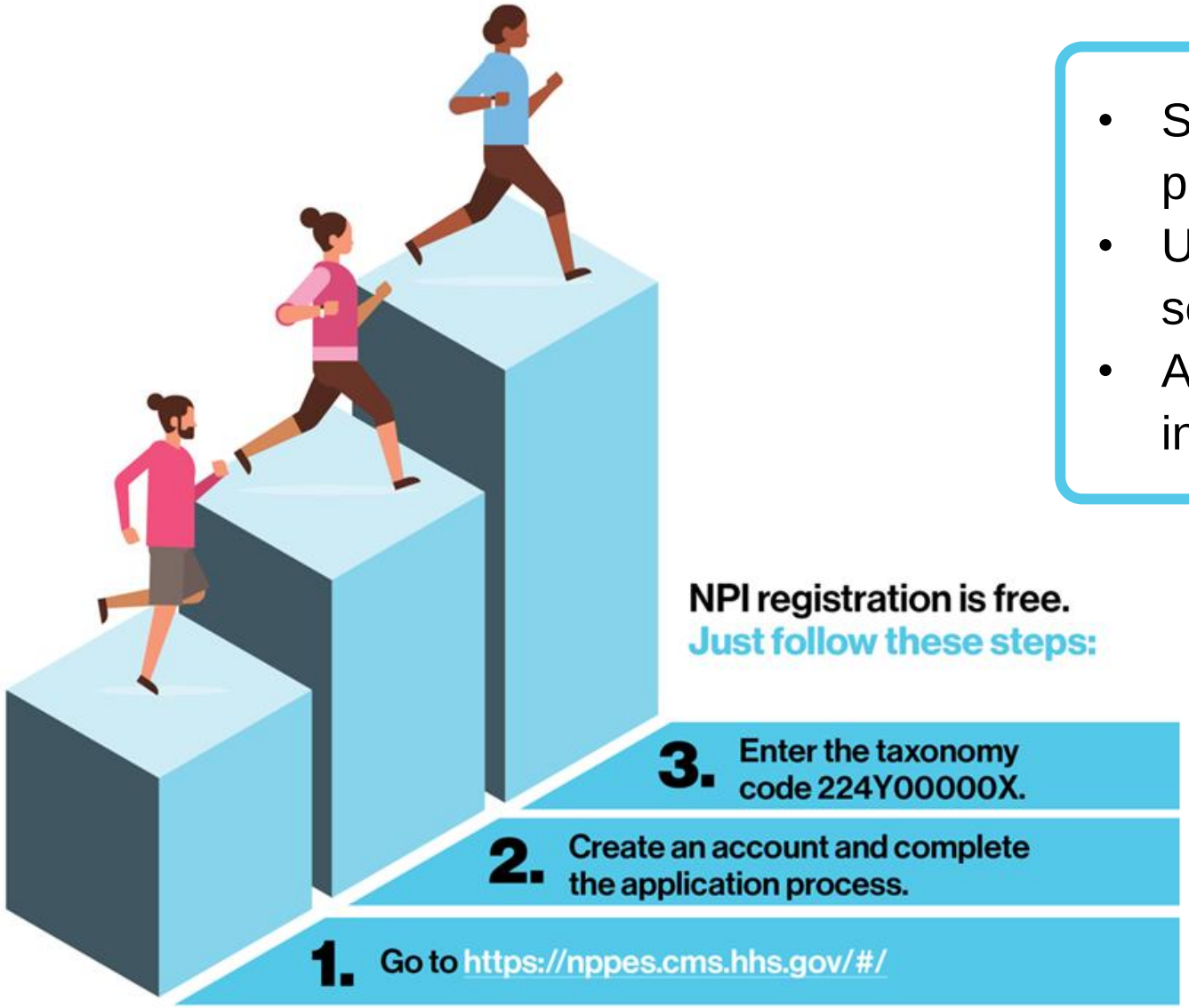
The Accreditation Process | Accredited Programs | CoAES Board | About CoAES | Contact | Resources | News

ACCREDITED

ACSM CERTIFIED CLINICAL EXERCISE PHYSIOLOGIST

August 15, 2027

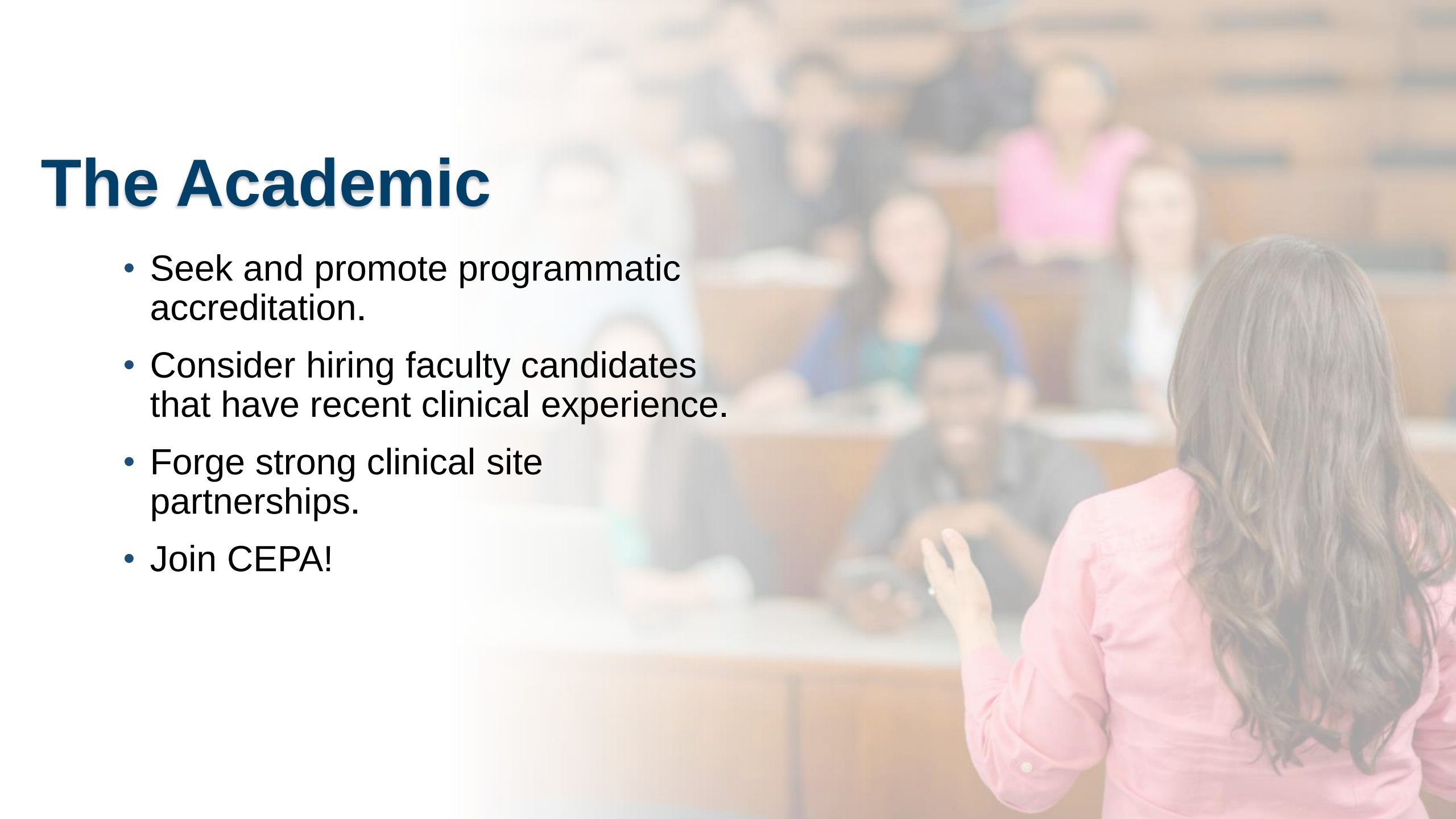
Get an Individual NPI Number



- Standard industry identifier for healthcare professionals
- Used to identify specific individuals rendering services to patients
- ACSM-CEPs and EPs can have a group and individual NPI

The Academic

- Seek and promote programmatic accreditation.
- Consider hiring faculty candidates that have recent clinical experience.
- Forge strong clinical site partnerships.
- Join CEPA!



The Manager

- Encourage and support employees' pursuit of the ACSM-CEP certification.
- Standardize professional titles within your organization to include "Clinical Exercise Physiologist".
- Include your program in the CEPA Internship Directory.
- If you are not a member of CEPA, join today.
- Volunteer to serve on a CEPA committee.

Salary Structure & Compensation

November 2022

CEPA Clinical Exercise Physiology Association
ACSM Affiliate Society

Clinical Exercise Physiologist Compensation Strategies: Recommendations by the Clinical Exercise Physiology Association

Author: Matthew B. Thomas, MS, MBA, ACSM-CEP
Contributors: Cemal Ozemek, PhD, ACSM-CEP, FACSM, FAACVPR; Laura A. Richardson, PhD, ACSM-CEP, FACSM; Laura Newsome, PhD, ACSM-CEP; Robert Berry, MS, ACSM-CEP; Wanda Koester, MS, ACSM-CEP
Reviewers: Steven J. Keteyian, PhD; Tracy Herrewig, MS, ACSM-CEP

Rationale

Personnel shortages of all types are the single greatest problem facing healthcare organizations according to the American College of Healthcare Executives (ACHE, 2022). Numerous anecdotal experiences from cardiopulmonary rehabilitation programs have reported facing workforce departures, particularly by Clinical Exercise Physiologists (CEPs), as well as having difficulty filling subsequent vacancies. The exit of CEPs from the healthcare workforce, in combination with the looming healthcare staffing shortage, will pose significant challenges for

Job Titles

Accredited Exercise Professional	Cardiac Rehab Clinical Specialist	Cardiac Rehab Exercise Specialist	Cardiac Rehab Lead	Cardiac Rehab Therapist
Cardiopulmonary Rehab Professional	*Clinical Exercise Physiologist*	Clinical Exercise Specialist	Clinical Exercise Coordinator	Clinical Fitness Provider
Cardiac Rehab Clinical Specialist	*Exercise Physiologist*	Exercise Professional	Exercise Scientist	Exercise Specialist
Fitness Specialist	Fitness Trainer	Fitness Specialist	Personal Trainer Cardiac Rehab	

CEP Practice Patterns

ORIGINAL RESEARCH

Clinical Exercise Physiologists in Cardiac Rehabilitation and Clinical Exercise Testing

Clinton A. Brawner, PhD, ACSM-CEP (Chair)[1], Robert Berry, MS, ACSM-CEP[2], Aaron W. Harding, PhD, ACSM-CEP[3], Jill K. Nustad, DSc, ACSM-CEP[4], Cemal Ozemek, PhD, ACSM-CEP[5], Laura A. Richardson, PhD, ACSM-CEP[6], Patrick D. Savage, MS[7]
on behalf of the Clinical Exercise Physiology Association

ABSTRACT

Background: The unique training of clinical exercise physiologists (CEPs) positions them to be an integral part of multidisciplinary teams in phase 2 cardiac rehabilitation (CR). However, the roles and responsibilities of CEPs vary widely between institutions. In addition, job tasks of CEPs at some institutions might not fully leverage their knowledge and skills. The purpose of this study was to describe the roles and responsibilities of CEPs working in CR and noninvasive clinical exercise testing at select institutions in the United States.

Methods: This was a descriptive study of the job tasks performed by CEPs in CR and noninvasive clinical exercise testing at select institutions. Job tasks that are common to CR and noninvasive clinical exercise testing were identified by a working group of the Clinical Exercise Physiology Association.

Results: The 6 CR programs in this report are predominately staffed by CEPs with no other health care professional present during exercise classes. In 5 of these programs CEPs perform all tasks required of phase 2 CR, from patient screening to program discharge. At 3 of the 4 programs that also performed noninvasive exercise testing, CEPs performed all the necessary tasks with no other health care professional present in the room during testing.

Conclusion: CEPs play an integral role in the conduct of phase 2 CR and noninvasive cardiology exercise testing. Granting privileges to CEPs that allow them to work at the top of their knowledge and skills will allow other health care professionals to better use their skills in other high demand areas. *J Clin Exerc Physiol*. 2023;12(2):38–45.

Keywords: privileges, profession, roles, responsibilities, staffing

Compensation Strategies

1. **Alignment of position titles**
   - Clarifies skills and training
   - Helps compare compensation across organizations
   - Work collaboratively with reginal partners to align definitions

2. **Job description review**
   - HR uses this to determine pay grade assignments and perform market analysis.

3. **Consensus on certification**
   - ACSM offers certifications for EP and CEP professionals
   - ACSM and CEPA endorse the **ACSM-CEP certification**

4. **Implementing career ladders**
   - Useful to improve compensation for professionals where market analyses are absent or resisted.

Career Ladders: 1st Method

Compensation differences are based on position responsibilities and/or meaningful differences in minimum professional requirements to execute essential functions.

Establish job position tiers based on…

- years of service, advanced academic preparation, achievement of professional certification, and the performance of added employment responsibilities.

Use of numeric modifiers (e.g., CEP I, CEP II) to distinguish job titles rather than creating a new position title

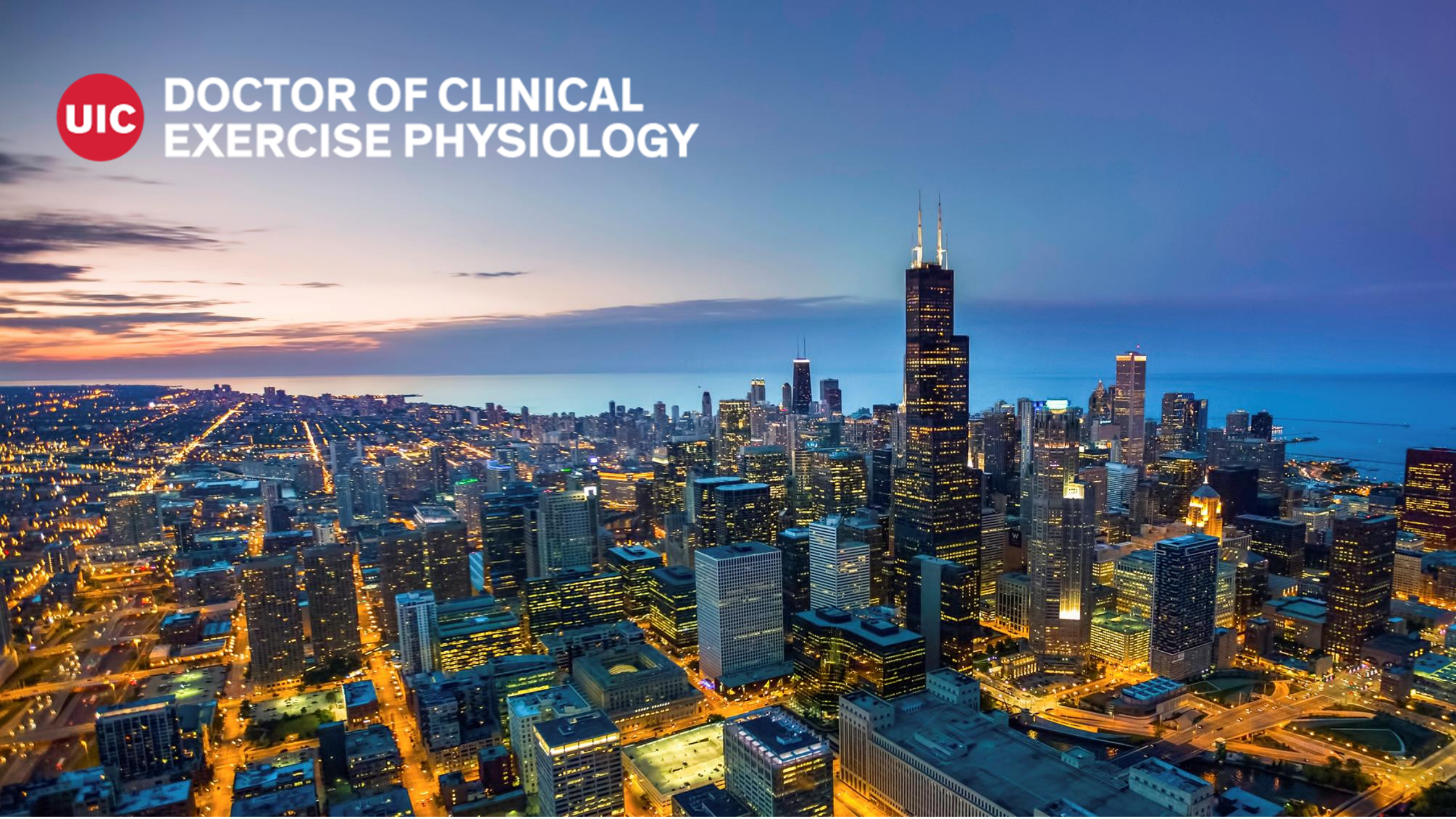
Career Ladders: 2nd Method

Implement pay incentives and/or differentials for individuals who achieve certain performance markers

- Does not affect base pay rates (e.g., hourly wage), but rather provides incentives for colleagues to receive bonuses or pay differentials based on performance, achievement and maintenance of certification, conducting research, and other professional engagements.
- Can help improve performance, patient care, and overall department innovation.

Hybrid method: Position tiers in combination with performance incentives

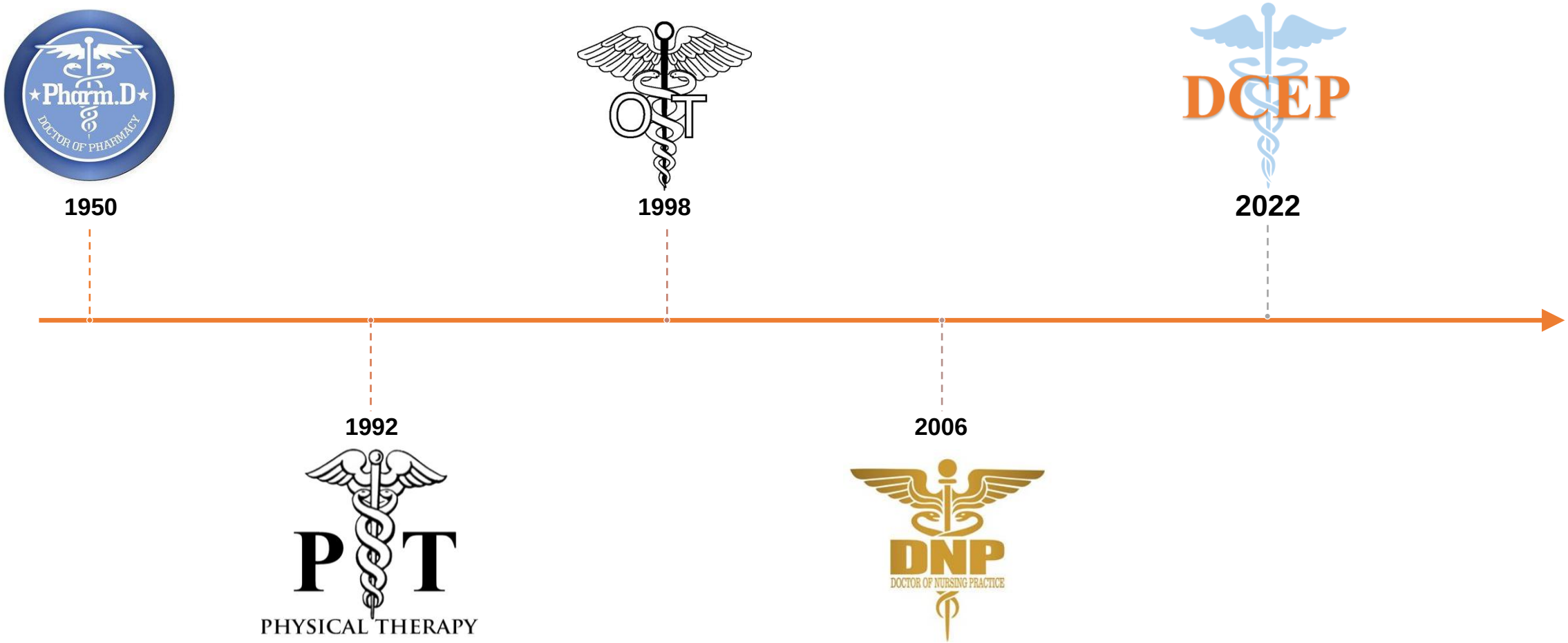
DOCTOR OF CLINICAL EXERCISE PHYSIOLOGY



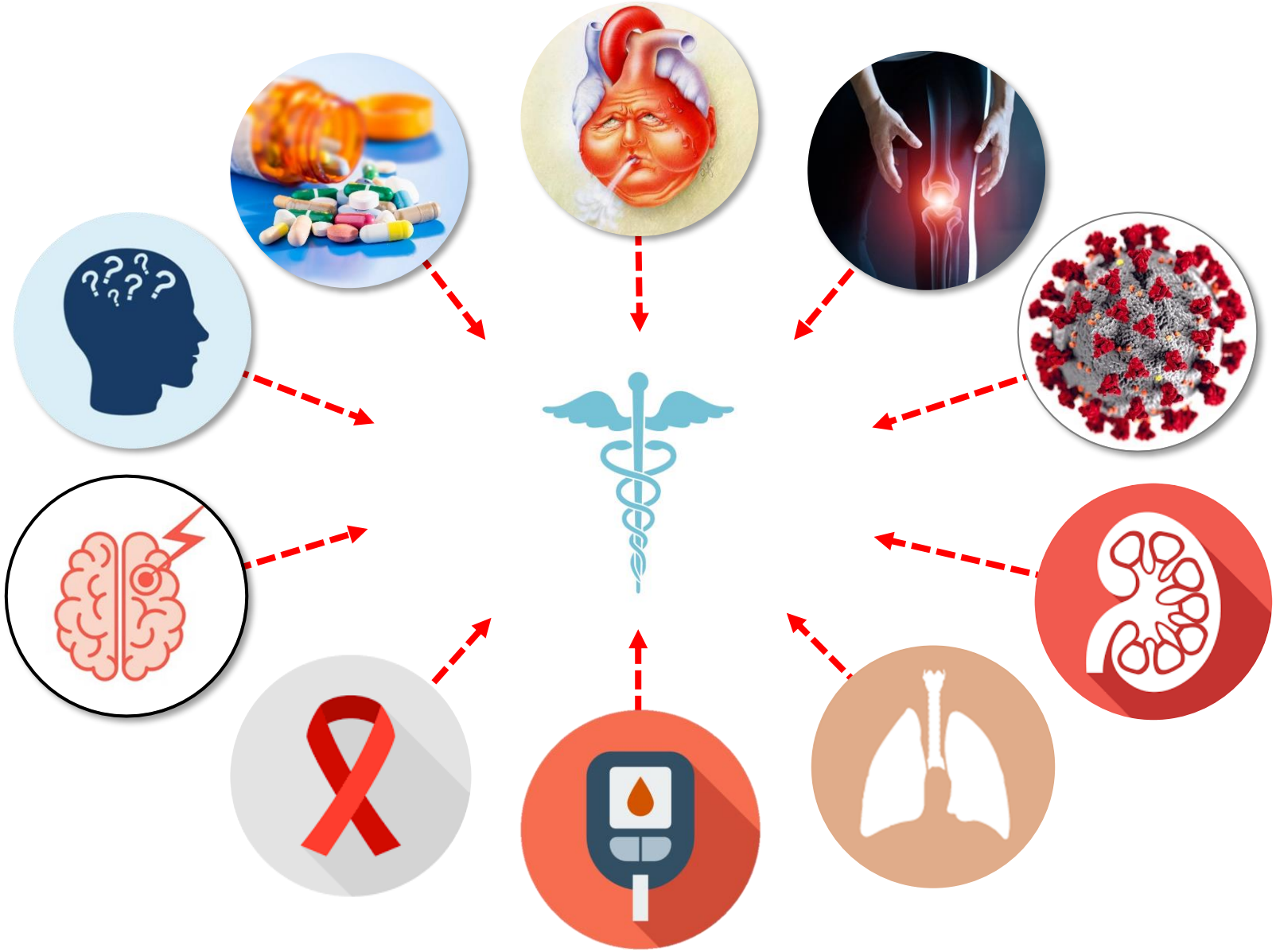
Professional Doctorate

- Focused on advancing practice of knowledge and skills through didactic and applied experiences.
- It is NOT a PhD and no dissertation! 🥳
- Still champion the scientific method and promote the application of evidence-based interventions.

Professional Doctorate



Clinically Complex Patients



Consensus/Opinion/Policy Statement

Time to Elevate the Education of Clinical Exercise Physiologists: A Professional Doctorate Model

Cemal Ozemek,[1] Leonard A. Kaminsky,[2] Peter H. Brubaker,[3] Carl J. Lavie, [4,5] and Ross Arena[1]

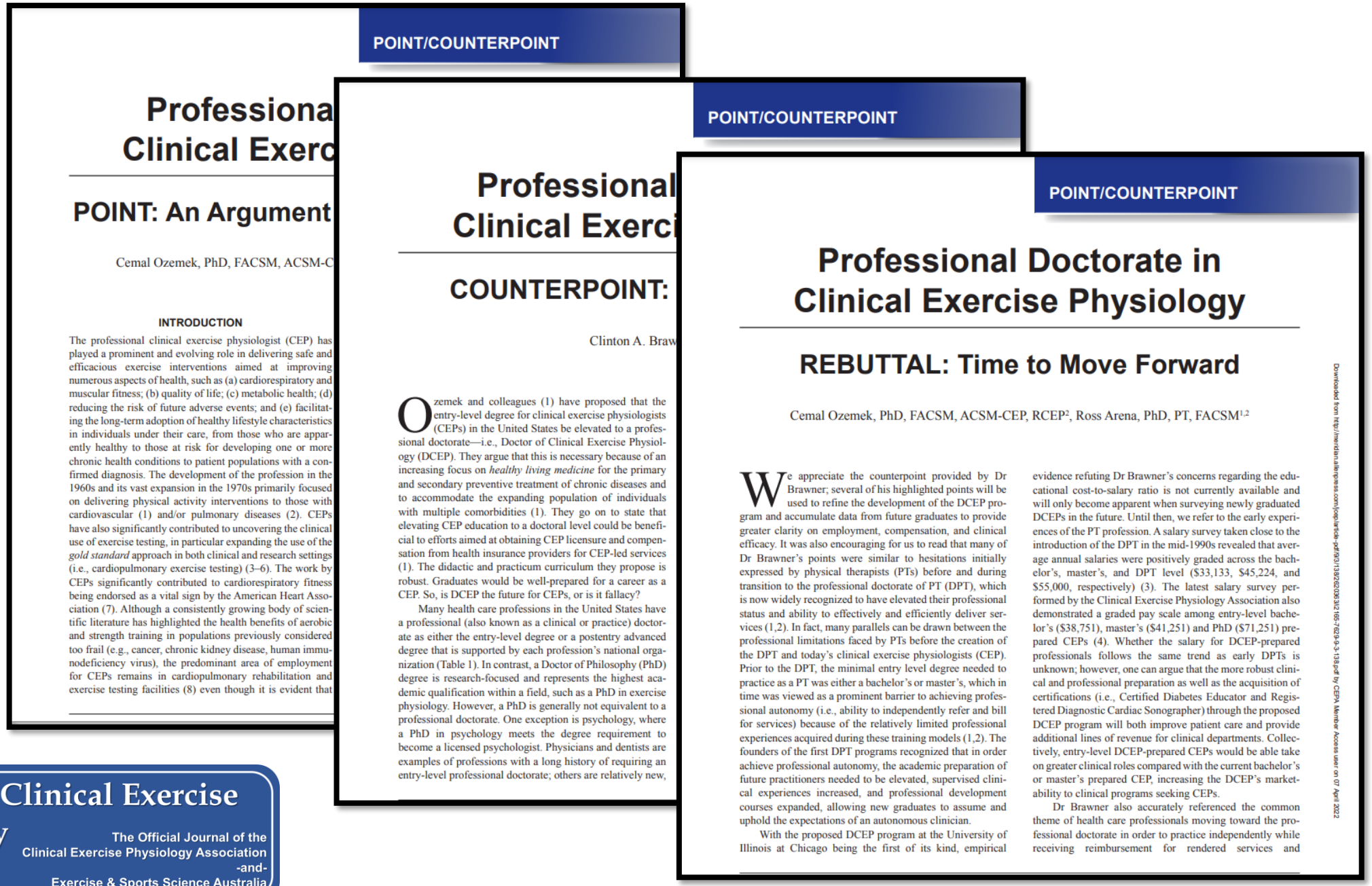
ABSTRACT

The increasing prevalence of noncommunicable diseases and multimorbidity negatively affects an individual's quality of life and health trajectory; this trend and resultant personal and clinical outcomes are of significant concern. Healthy living (HL) behaviors (physical activity, dietary modification, smoking cessation, and medication compliance) are known to provide substantial health benefits that slow the progression or in some cases reverse the deleterious effects associated with inactivity and consumption of a diet high in sodium, fat content, added sugars, and energy-dense foods. However, it is becoming increasingly clear that a one-size-fits-all approach to HL interventions in populations at risk for or diagnosed with noncommunicable diseases is inadequate to promote optimization of health outcomes. Practitioners implementing HL interventions, such as clinical exercise physiologists (CEP), must instead understand the complexity or multimorbidity phenotypes and be able to effectively tailor programs for each condition. Although CEP may receive master's level training in this area, the rise in patients with complex multimorbidity warrants consideration of elevating the professional expectations to better prepare CEP in training to deliver highly effective primary and secondary prevention HL interventions. Many licensed allied health professions (i.e., physical therapy, pharmacy, occupational therapy, nursing, nutrition, etc.) have recognized the call to move toward professional doctoral degree programs to better prepare practitioners within their field. This article proposes a professional doctorate degree program aimed at enhancing the training of CEP to become highly effective practitioners.

or more NCD are at a higher risk for losing functional independence as well as increased risk for morbidity and premature mortality compared with apparently healthy individuals (2). The direct and indirect costs of managing NCD contribute to significant financial burdens on individuals and their family members as well as health care systems (3). Although the factors contributing to the development of NCD are multifactorial and complex, lifestyle barriers that limit physical activity (PA), increase sedentary time, and enable the overconsumption of foods that are energy dense (i.e., high in sodium, fat, and added sugars) are clearly associated with the development and progression of NCD (2,4). In fact, sedentary behavior and obesity have reached epidemic proportions and require immediate action to reverse this course (5,6).

In "Westernized" countries, the phenotype of low PA, high sedentary time, overconsumption of energy-dense and low nutrient foods, and excess body mass has

Ozemek et al. *TJACSM*. 2019; 4(18):185-191


POINT/COUNTERPOINT
Professiona
Clinical Exerc
POINT: An Argument
Cemal Ozemek, PhD, FACSM, ACSM-C
INTRODUCTION
The professional clinical exercise physiologist (CEP) has played a prominent and evolving role in delivering safe and efficacious exercise interventions aimed at improving numerous aspects of health, such as (a) cardiorespiratory and muscular fitness; (b) quality of life; (c) metabolic health; (d) reducing the risk of future adverse events; and (e) facilitating the long-term adoption of healthy lifestyle characteristics in individuals under their care, from those who are apparently healthy to those at risk for developing one or more chronic health conditions to patient populations with a confirmed diagnosis. The development of the profession in the 1960s and its vast expansion in the 1970s primarily focused on delivering physical activity interventions to those with cardiovascular (1) and/or pulmonary diseases (2). CEPs have also significantly contributed to uncovering the clinical use of exercise testing, in particular expanding the use of the gold standard approach in both clinical and research settings (i.e., cardiopulmonary exercise testing) (3–6). The work by CEPs significantly contributed to cardiorespiratory fitness being endorsed as a vital sign by the American Heart Association (7). Although a consistently growing body of scientific literature has highlighted the health benefits of aerobic and strength training in populations previously considered too frail (e.g., cancer, chronic kidney disease, human immunodeficiency virus), the predominant area of employment for CEPs remains in cardiopulmonary rehabilitation and exercise testing facilities (8) even though it is evident that
POINT/COUNTERPOINT
Professional
Clinical Exerci
COUNTERPOINT:
Clinton A. Braw
Ozemek and colleagues (1) have proposed that the entry-level degree for clinical exercise physiologists (CEPs) in the United States be elevated to a professional doctorate—i.e., Doctor of Clinical Exercise Physiology (DCEP). They argue that this is necessary because of an increasing focus on healthy living medicine for the primary and secondary preventive treatment of chronic diseases and to accommodate the expanding population of individuals with multiple comorbidities (1). They go on to state that elevating CEP education to a doctoral level could be beneficial to efforts aimed at obtaining CEP licensure and compensation from health insurance providers for CEP-led services (1). The didactic and practicum curriculum they propose is robust. Graduates would be well-prepared for a career as a CEP. So, is DCEP the future for CEPs, or is it fallacy?
Many health care professions in the United States have a professional (also known as a clinical or practice) doctorate as either the entry-level degree or a postentry advanced degree that is supported by each profession's national organization (Table 1). In contrast, a Doctor of Philosophy (PhD) degree is research-focused and represents the highest academic qualification within a field, such as a PhD in exercise physiology. However, a PhD is generally not equivalent to a professional doctorate. One exception is psychology, where a PhD in psychology meets the degree requirement to become a licensed psychologist. Physicians and dentists are examples of professions with a long history of requiring an entry-level professional doctorate; others are relatively new,
POINT/COUNTERPOINT
Professional Doctorate in Clinical Exercise Physiology
REBUTTAL: Time to Move Forward
Cemal Ozemek, PhD, FACSM, ACSM-CEP, RCEP[2], Ross Arena, PhD, PT, FACSM[1,2]
We appreciate the counterpoint provided by Dr Brawner; several of his highlighted points will be used to refine the development of the DCEP program and accumulate data from future graduates to provide greater clarity on employment, compensation, and clinical efficacy. It was also encouraging for us to read that many of Dr Brawner's points were similar to hesitations initially expressed by physical therapists (PTs) before and during transition to the professional doctorate of PT (DPT), which is now widely recognized to have elevated their professional status and ability to effectively and efficiently deliver services (1,2). In fact, many parallels can be drawn between the professional limitations faced by PTs before the creation of the DPT and today's clinical exercise physiologists (CEP). Prior to the DPT, the minimal entry level degree needed to practice as a PT was either a bachelor's or master's, which in time was viewed as a prominent barrier to achieving professional autonomy (i.e., ability to independently refer and bill for services) because of the relatively limited professional experiences acquired during these training models (1,2). The founders of the first DPT programs recognized that in order achieve professional autonomy, the academic preparation of future practitioners needed to be elevated, supervised clinical experiences increased, and professional development courses expanded, allowing new graduates to assume and uphold the expectations of an autonomous clinician.
With the proposed DCEP program at the University of Illinois at Chicago being the first of its kind, empirical evidence refuting Dr Brawner's concerns regarding the educational cost-to-salary ratio is not currently available and will only become apparent when surveying newly graduated DCEPs in the future. Until then, we refer to the early experiences of the PT profession. A salary survey taken close to the introduction of the DPT in the mid-1990s revealed that average annual salaries were positively graded across the bachelor's, master's, and DPT level ($33,133, $45,224, and $55,000, respectively) (3). The latest salary survey performed by the Clinical Exercise Physiology Association also demonstrated a graded pay scale among entry-level bachelor's ($38,751), master's ($41,251) and PhD ($71,251) prepared CEPs (4). Whether the salary for DCEP-prepared professionals follows the same trend as early DPTs is unknown; however, one can argue that the more robust clinical and professional preparation as well as the acquisition of certifications (i.e., Certified Diabetes Educator and Registered Diagnostic Cardiac Sonographer) through the proposed DCEP program will both improve patient care and provide additional lines of revenue for clinical departments. Collectively, entry-level DCEP-prepared CEPs would be able take on greater clinical roles compared with the current bachelor's or master's prepared CEP, increasing the DCEP's marketability to clinical programs seeking CEPs.
Dr Brawner also accurately referenced the common theme of health care professionals moving toward the professional doctorate in order to practice independently while receiving reimbursement for rendered services and
Downloaded from http://meridian.allenpress.com/jcep/article-pdf/93/1382/2603932/i65-7629-9-3-138.pdf by CEPA Member Access user on 07 April 2022
Journal of Clinical Exercise Physiology
The Official Journal of the Clinical Exercise Physiology Association -and- Exercise & Sports Science Australia

Professional Doctor of CEP (DCEP)

Minimum Admission Criteria

- MA/MS in Exercise Science
  - Minimum GPA of 3.0
  - ECG
  - Clinical exercise testing, interpretation and Rx
  - Advanced exercise physiology
- At least 100 hr clinical experience

Program Layout

- 1 or 2 year option
- Courses
  - Diabetes Educator
  - Clinically complex patients
  - Cardiovascular sonography
  - Behavior/nutrition counseling
  - Clinical Program Management
- Clinical Rotations
  - UIC, Northwestern, U of C

UIC

DIABETES CARE AND EDUCATION SPECIALIST

CDCES

CERTIFIED

Advice for Young (C)EPs

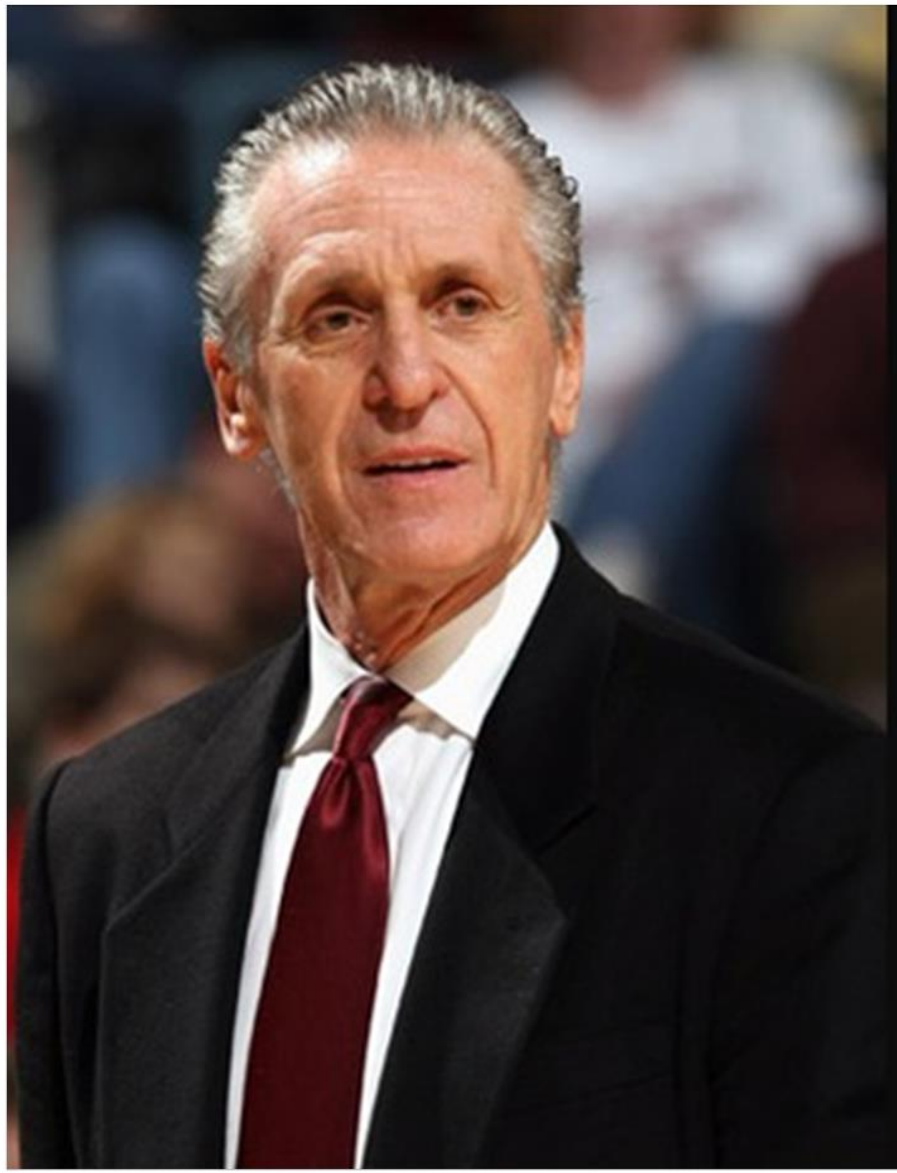
Simple Steps That Make a Difference

1. **Acquire ACSM-CEP certification**

2. **Increase recognition**
   - Include ACSM-CEP in your email signature and resume.
   - Adopt the title “Registered Clinical Exercise Physiologist” in your email signature, resume, and vocabulary.

3. **If you are not a member of CEPA, join today.**

4. **Volunteer to serve on a CEPA committee.**



Excellence is the gradual result of always striving to do better.

— Pat Riley —

Strive for Excellence

- Stay up to date…learning is life long
- Maintain a high level of curiosity
- CEP is more than cardiopulmonary rehab
- Use your education and training to its full capacity
- You truly can make a difference

CEPA
ACSM Affiliate Society

Thank you!

ozemek@uic.edu

UIC