



IFCC GENERAL CONFERENCE
BUDAPEST NOVEMBER 9-11, 2018

IFCC General Conference 2018

Laboratory medicine: Preparing for the 2020's

10th – 11th November 2018
Hotel Novotel Budapest City, Hungary

Advancing excellence in laboratory medicine for better healthcare worldwide





The Role of Management Innovation and Leadership for the Clinical Laboratory

Sedef Yenice
Edward Randell





Outline

2

- **Survey on Laboratory Leadership Learning Needs**
- **Overview of Laboratory Leadership Training Program**
- **A Sneak Peak into Module 1**
- **Innovation Leadership and the Significance for the Clinical Laboratory Management**
- **Q & A**





Survey on Laboratory Leadership Learning Needs





C-CLM Leadership Survey

4



**266 RESPONDENTS FROM
56 COUNTRIES**



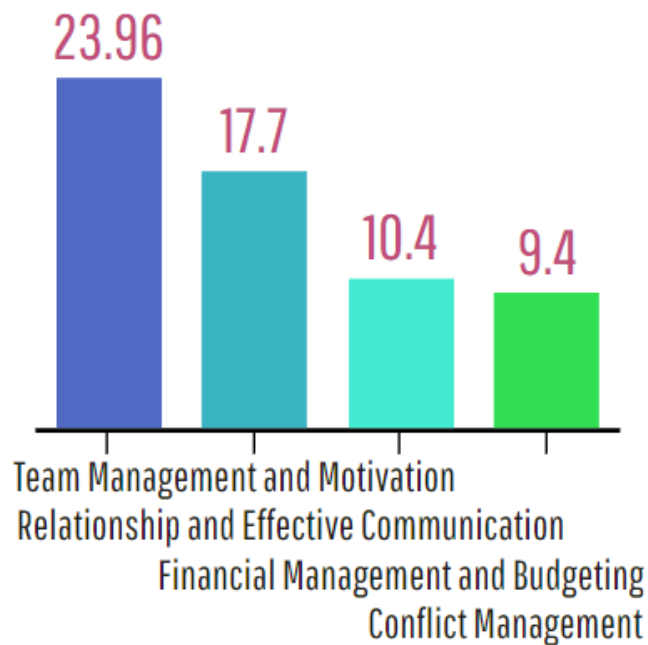
**43% from accredited labs
26% from labs pursuing
accreditation**



C-CLM Leadership Survey

5

TOP FOUR TOPICS (%)



The most acknowledged professional designations/ activities included:

- 38.1 % were Clinical Laboratory Specialist;
- 19.4% were Professor/Instructor;
- 15.6% indicated laboratory manager, and
- 14.2% identified as physician laboratory director and
- 13.8% as non-physician laboratory director.



C-CLM Leadership Survey – Published on IFCC eNews October 2018 Issue



C-CLM su

International Federa

The importance of good leadership in an organization is evidenced by the fact that organizations are willing to apply it to their development. Leadership theory describes it as both an art and a science. Although many say that leadership qualities are innate traits, there is growing evidence that they can be learned through a training process.

The clinical laboratory environment is complex, with the scope of services ranging from relatively simple phlebotomy centers to laboratories applying cutting-edge, esoteric analyses.

Leadership in the medical laboratory involves interaction with other front-line health care professionals towards the management, maintenance, and development of medical laboratory services.

Figure 1 Responses by continent. Size of the circle is proportional to the number of respondents.



266 RESPONDENTS FROM 56 COUNTRIES



43% from accredited labs
26% from labs pursuing accreditation

This will take the form of a Laboratory Leadership Training Programme, which will cover major topics related to developing effective leadership techniques.

It is also a goal of C-CLM to have the programme accredited in order to provide certificates to participants in the programme. In addition to the topics covered in most leadership training, C-CLM also developed and circulated a survey. IFCC represented national societies in order to identify gaps in knowledge that can then be added to the programme.

The twenty-question survey addressed a self-rated comfort level on topics covering three areas of leadership, including: Self-Management and Leadership Style; Leading Change; and Leading and Managing the Laboratory.

Participants from at least 56 different countries participated in the survey with national societies in Canada, Jordan, Turkey, Chile, India, and Slovenia up almost half of all 266 participants (Figure 1).

About 43% of participants came from accredited labs with another 26% from labs pursuing accreditation.

of disagreement with the statement, suggest a self-identified knowledge gap.

Although results may have been different from those assessed, questions addressed knowledge of the topic more directly, such surveys provide an indication of potential interest in learning more in an area and a recognition of the potential need for further education.

When asked to identify other topics where they felt to be a significant knowledge gap, 96 respondents provided additional input. The top four included:

- Work relationships and effective communication with subordinates and superiors (17.7%);
- Team management and motivation (23.9%);
- Financial management and budgeting (10.4%);
- and conflict management (9.4%).

Other topics identified by four or more respondents (38.5%) included:

- Developing and monitoring quality indicators and a quality management system (an existing project of C-CLM);
- Self-management and emotional intelligence (Building a business case);
- Marketing and growing the laboratory;
- Safety and Risk Management;

Table 1 Summary of survey responses with survey statements

Survey	Self-management
I can identify my own learning style and describe working in teams	38.5
I am familiar with several different ways of resolving each in different types of conflict situation	33.2
I can confidently identify common barriers to effective change management	25.8
I can identify several strategies to address barriers	44.3

Leading change	
I can confidently describe the common biases that affect the ability to make sound decisions	38.5
I can confidently describe the parts of a formal project management plan	33.2
I can confidently identify common barriers to effective change management	25.8
I describe the principles for effective change management	44.3
I can confidently describe why strategic planning in Health Care is important	28.7
I can confidently describe the strategic planning process	40.2
I can confidently develop a programme evaluation plan	38.9
I can confidently describe the types and purposes of evaluation	37.3

Leading and managing the laboratory	
I can confidently describe the differences between leading a laboratory versus managing a laboratory	28.3
I can confidently identify and describe my leadership style	21.0
I can confidently describe how to build an effective laboratory team in spite of the challenges presented by generational, cultural, and lifestyle differences	25.8
I can confidently describe how to effectively manage human resources including how to attract, hire, develop and keep talented workers in my laboratory	35.6
I can describe the differences between organizational vision, mission, goals, and objectives and describe how they apply to me (as a laboratory leader) and to my laboratory	31.8
I can list the principles of good communication, and describe how to communicate accurately toward achieving the desired outcomes for my laboratory	27.0
I can confidently describe the principles and tools of risk assessment and risk management for reducing patient harm	30.9
I can confidently describe the principles and practices of ethical leadership	33.5

Acknowledgment: Thanks to the full members Edward Randell and Sedef Yenice (Chair) from the C-CLM who wrote and worked together in the preparation of this short communication.



Sedef Yenice & Edward Randell
The Role of Management Innovation and Leadership
for the Clinical Laboratory

7

Overview of Laboratory Leadership Training Program



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C-CLM Clinical Laboratory Leadership Training Certificate Program

8

DESCRIPTION

The program curriculum is designed to assist the lab professionals in developing their own strategies for leading change within a rapidly evolving lab practice and service delivery system.

Teaching/learning formats include case studies, interactive educational workshops and webinars.

ACCREDITATION and CERTIFICATION

The Lab Leadership Program will be accredited by The Canadian Academy of Clinical Biochemistry (CACB) in compliance with the CACB accreditation requirements. Certificates will be issued to those successfully completing the program.





C-CLM Clinical Laboratory Leadership Training Certificate Program

9

Self-discovery and Self Management

- Leadership Attitudes and Styles
- Conflict Resolution
- Prioritizing and Managing Personal Workloads

Leading Change

- Project Management Fundamentals
- Managing Change
- Strategic Planning
- Program Evaluation Methods

Laboratory Leadership and Management: Inside and out

- The Leader versus the Manager
- Recruiting and developing talented Laboratory Staff
- The ethical Laboratory Professional
- The Laboratory Leader as Communicator
- Championing Patient Safety





C-CLM Clinical Laboratory Leadership Training Certificate Program

10

December 2018

**Module
1**

- **Self-discovery and self management**

June 2019

**Module
2**

- **Leading Change**

November 2019

**Module
3**

- **Lab Leadership and Management: inside and out**





A Sneak Peek into Module 1



MODULE 1

Self-Discovery and Self-Management

Leadership Attitudes and Styles

Conflict Resolution

Time Management and Balancing Workplace Workload

Leadership Attitudes and Styles

Leadership style and impact on relationships in the workplace

Defining Conflict

Personal Responses to Conflict

Conflict Resolution Process

Barriers to Effective time management

Strategies to Effective Time Management

Effective management of meetings





C-CLM Clinical Laboratory Leadership Training Certificate Program

Contents

Module 1: Leadership Attributes and Styles	3
Learning Objectives	3
Introduction	3
Defining Leadership.....	3
Challenges in the Medical Laboratory Environment	
Leadership in the Medical Laboratory Environment:.....	
Leadership Styles.....	
Leadership motivation.....	
Leadership and Power	
Activity 1: Self-Assessment of Leadership Style	
Leadership Attributes	
Leadership and personality: The “Big Five”	
Emotional Intelligence.....	
Managing up.....	
Leadership pitfalls	
Activity 2: Self-Assessment of Problem Solving Styles and Personality.	
Leading with Limited Resources	
Becoming a Better Leader	
Activity 3: A small steps towards big change.	
Summary	
References.....	22
Bibliography	23

Web-based Text

Module 1: Leadership Attributes and Styles

Learning Objectives

The following sections will provide you with information to:

- Describe the attributes of good leadership
- Describe emotional intelligence and its impact of leadership performance.
- Describe different leadership styles and the pros and cons of each style.
- Develop and improve your leadership capabilities

Introduction

This chapter provides an overview of what makes a leader. This is coupled with practical information on how to improve leadership skills. This session will cover some of the different leadership styles, and leadership attributes important for team building. As a focus of this session is self-management towards improving personal value to the organization, improving emotional intelligence, self-reflection and self-awareness will be emphasized.

Defining Leadership

“I am more afraid of an army of 100 sheep led by a lion than an army of 100 lions led by a sheep”

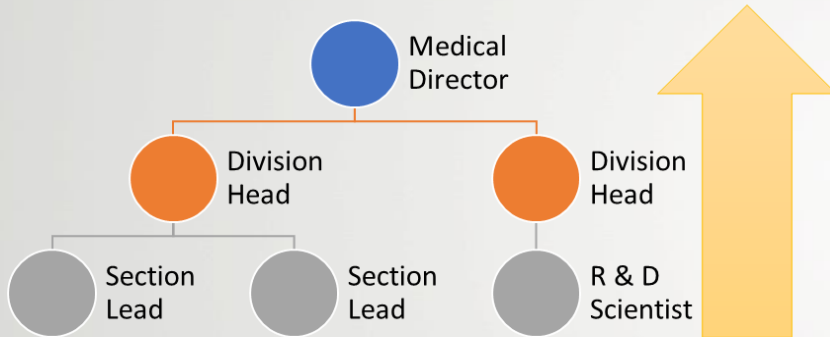
Talleyrand

Leadership, simply defined, indicates the ability to influence others toward fulfilling visions and goals. Leaders challenge the *status quo*, create a vision for the future, and inspire others towards achieving the vision. Leadership is distinguished from management in that leaders sets paths for

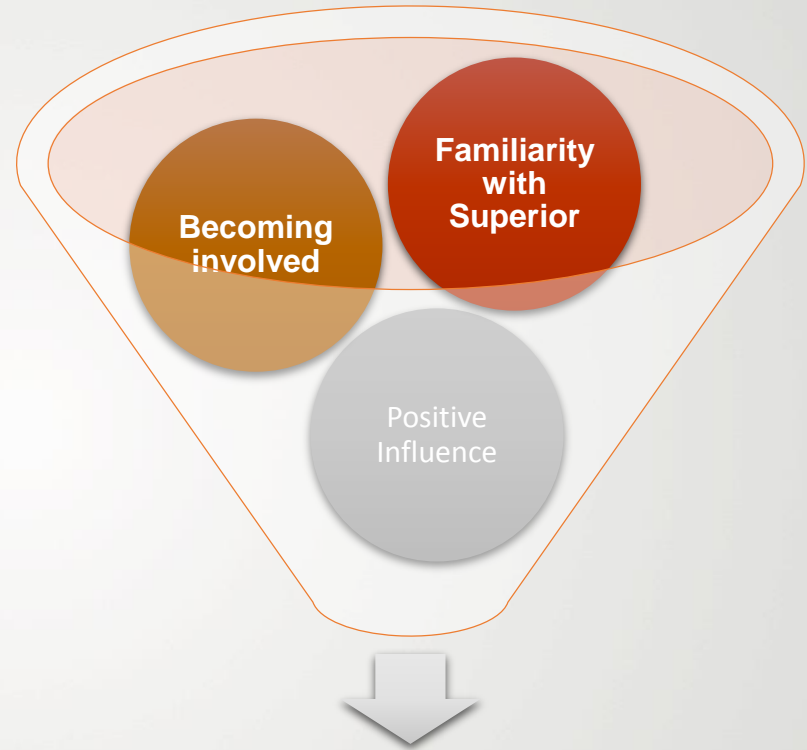


“Managing up”

“...active and conscious working toward benefiting both yourself and your superior.”



Drives innovation and change by mobilizing your superior.



**Work satisfaction
Respect & Confidence
Influence & Advancement**



Leadership and Personality

15

The **“Big Five”** is a framework illustrating major predictors of Leadership.





Polling Question

16

- <http://etc.ch/PaPM>
- <https://directpoll.com/r?XDbzPBdJ2bAX0ZEoyWNVjfp9rPU9mLnIr3qlg6XFf7>





Leadership and Followers

17

“A leader is someone who can get things done through other people...”

Warren Buffet

Why People Follow Leaders:

Trust

- Honesty
- Integrity
- Respect

Compassion

- Caring
- Friendship
- Happiness
- Love

Stability

- Security
- Strength
- Support
- Peace

Hope

- Direction
- Faith
- Guidance

Based on a Gallop survey done over 2005 to 2008 of over 10,000 followers

In: Conchie B, Rath T. Strengths based leadership: great leaders, teams, and why people follow.
Gallup Press; 2008.





Emotional Intelligence

REGULATION RECOGNITION

SELF

SOCIAL

Self Awareness

- Emotions, Moods, Drives
- Effects on others

Social Awareness

- Other's thoughts & feelings
- Showing empathy

EI

Self Management

- Control disruptive impulses & moods
- Think before Acting

Relationship Management

- Building bridges, bonds, & teams
- Conflict management





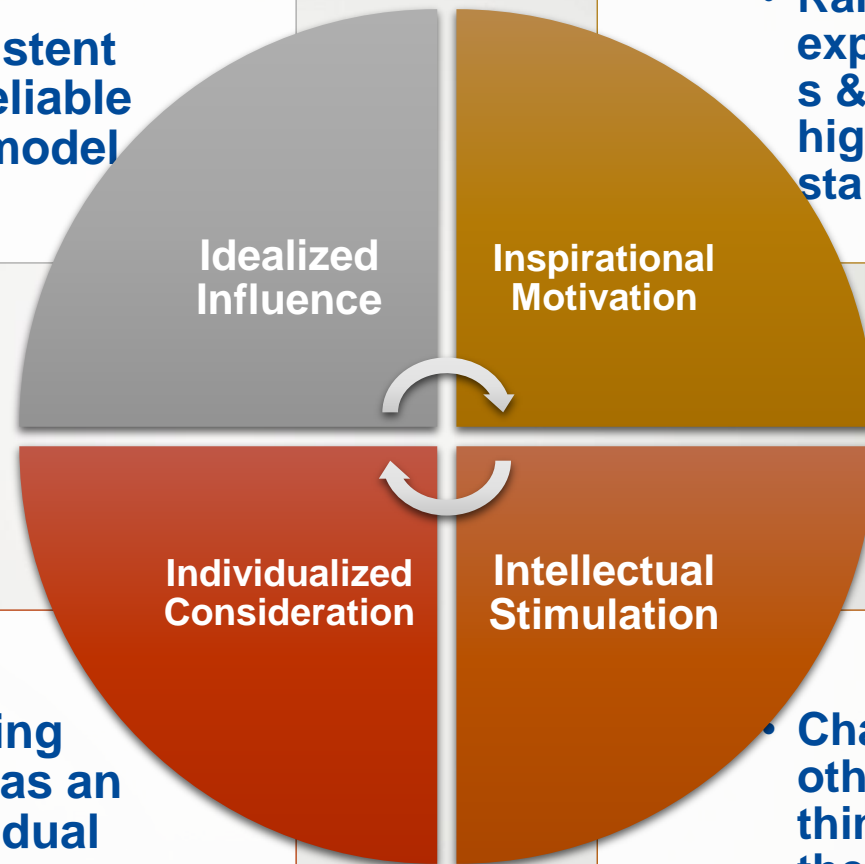
Activity...Small steps to big change

19

Transformational leadership style is one of the most effective and is distinguished in that it elevates followers through four different dimensions

- A consistent & reliable role model

- Raising expectations & setting high standards



- Treating each as an individual

- Challenges others to think for themselves





Activity... Small steps to big change

20

Think about past leadership experiences...

- Write down your strengths & weaknesses

Pick a transformational practice you need to improve...

- Idealized Influence
- Inspirational Motivation
- Intellectual Stimulation
- Individualized Consideration

Set a challenging & measurable goal and begin working on it...

- Determine how you will measure your progress.

Think about who & what you will need to meet goal, and barriers and how to overcome.

- Monitor your progress over a few months



The **MOST** effective way to improve your leadership effectiveness involves working on...

- 1) Becoming better informed on current events
- 2) Changing your personality
- 3) Improving your Intelligence Quotient (IQ)
- 4) Improving your social interactions (EQ)
- 5) Improving your motivation



C-CLM Clinical Laboratory Leadership Training Certificate Program

22

Program Content and Design

Web-based Text

Recorded Presentations

Training Exercises

MCQ Based Examinations



Certificate of Accomplishment
(Accredited by Canadian Academy of Clinical Biochemistry)





Innovation & Leadership



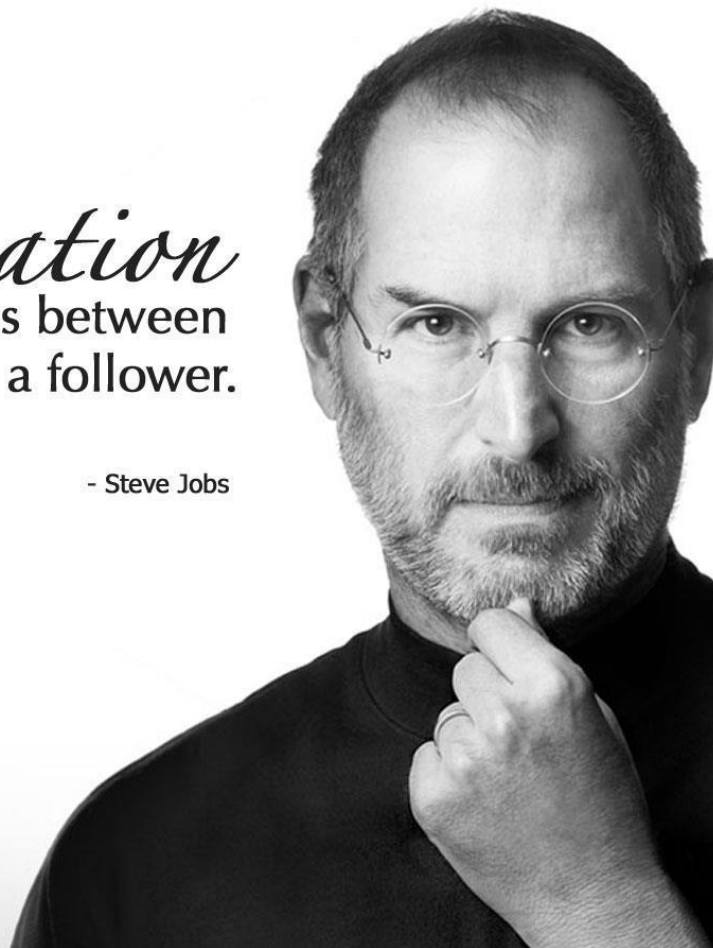


Innovation & Leadership

24

Innovation
distinguishes between
a leader and a follower.

- Steve Jobs



EM-Media, Inc.



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What Leaders Need Now is Innovation Leadership



Innovative Leadership — the use of innovative thinking and the leadership that supports it—is the key to finding

- what's new,
- what's better, and
- what's next.

Image retrieved from <http://www.hroot.com/>



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The Big ... With ...



JOURNAL REPORTS: LEADERSHIP

The Experts: How Should Leaders Spur Innovation?

March 12, 2013 6:38 p.m. ET

What's the most important thing leaders can do to spark innovation at their institutions? The Wall Street Journal put this question to The Experts, an exclusive group of industry and thought leaders who engage in in-depth online discussions of topics from the print Report. This question relates to a recent article on the drivers of innovation.

The Experts will discuss topics raised in this month's Unleashing Innovation Report and other Wall Street Journal Reports. Find the finance Experts online at WSJ.com/LeadershipReport...



Why Innovation Matters

- As problems and circumstances become more complex, the solutions don't fit previous patterns.
- We don't recognize the situation.



This requires skills beyond everyday analysis.

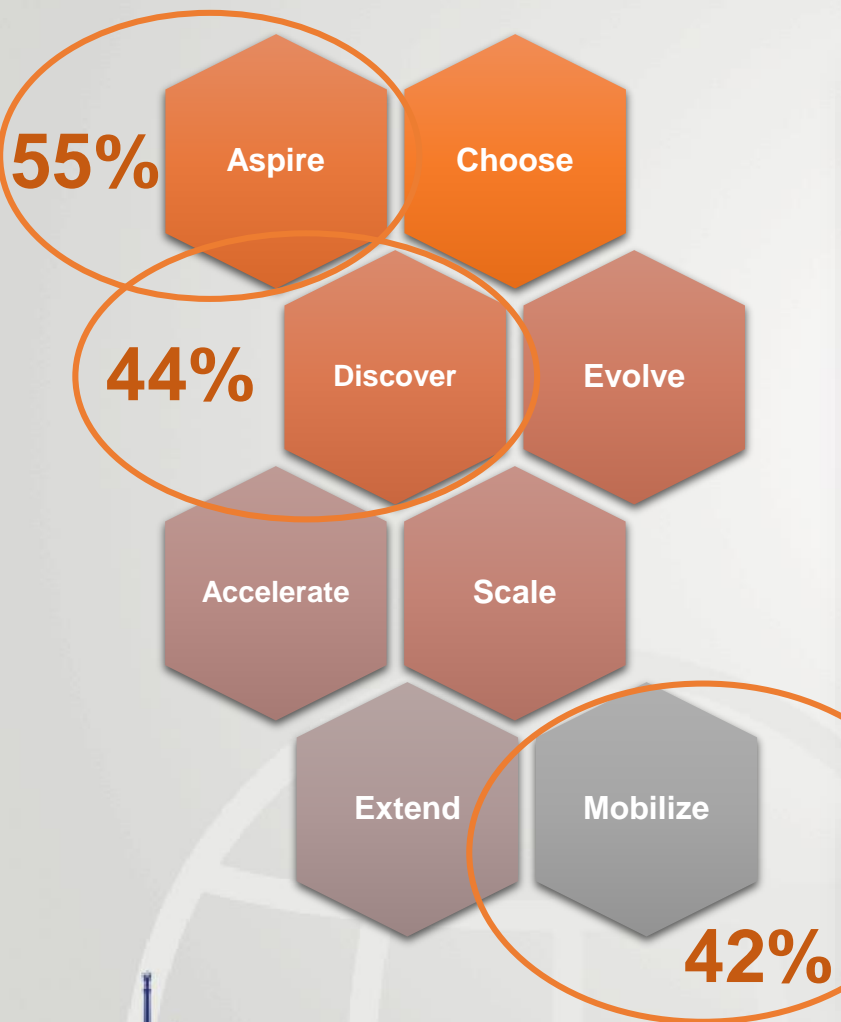
It requires innovation leadership.

- What worked before may not work anymore. We must have a grasp of the whole of the situation.





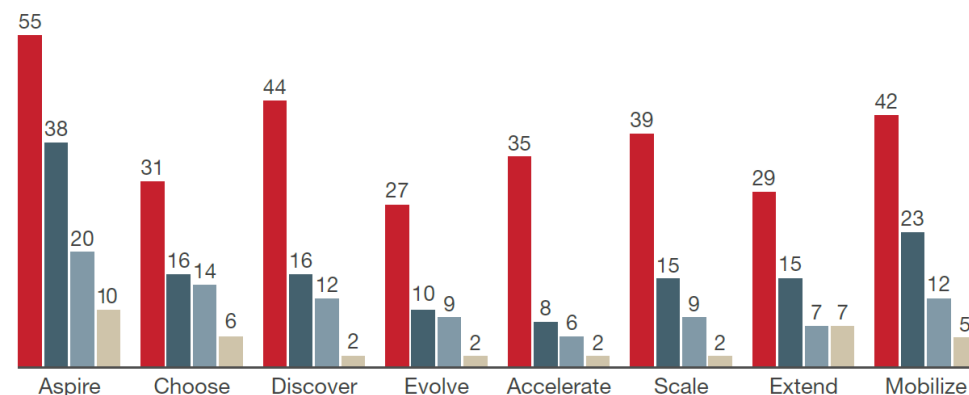
Innovation & Leadership



What innovation leaders say they do right

% of respondents by performance quartile¹

■ Top quartile ■ 2nd ■ 3rd ■ 4th



The survey tested for 27 innovation practices spread across eight essentials

¹N = 623. Performance defined as a weighted index of measures for organic growth (% of growth from new products or services developed in-house) and innovation performance (% of sales from new products and self-assessment of innovation performance). Respondents who answered "yes to some degree," "no," or "don't know/not applicable" are not shown.

Source: McKinsey survey of 2,500 global executives, Nov 2012



Components of Innovation Leadership

Do you really innovate?		Underlying elements
ASPIRE	Do you regard innovation-led growth as critical, and do you have cascaded targets that reflect this?	<ul style="list-style-type: none"> • Innovation vision and model • Required growth contribution from innovation • Cascaded targets and accountabilities
CHOOSE	Do you invest in a coherent, time- and risk-balanced portfolio of initiatives with sufficient resources to win?	<ul style="list-style-type: none"> • Clarity of innovation themes • Portfolio balancing time and risk • Resources sufficient for initiatives to win • Portfolio governance
DISCOVER	Do you have actionable and differentiated business, market, and technology insights that translate into winning value propositions?	<ul style="list-style-type: none"> • Customer orientation • Multiple-lens insight generation • Differentiated value proposition
EVOLVE	Do you create new business models that provide defensible, robust, and scalable profit sources?	<ul style="list-style-type: none"> • Exploration of new business models • Changing value-chain economics • Diversifying profit streams • Delivery – model changes and new customer groups



Components of Innovation Leadership

30

Do you really innovate?		Underlying elements
ACCELERATE	Do you regard innovation-led growth as critical, and do you have cascaded targets that reflect this?	<ul style="list-style-type: none">• Innovation vision and model• Required growth contribution from innovation• Cascaded targets and accountabilities
SCALE	Do you invest in a coherent, time- and risk-balanced portfolio of initiatives with sufficient resources to win?	<ul style="list-style-type: none">• Clarity of innovation themes• Portfolio balancing time and risk• Resources sufficient for initiatives to win• Portfolio governance
EXTEND	Do you have actionable and differentiated business, market, and technology insights that translate into winning value propositions?	<ul style="list-style-type: none">• Customer orientation• Multiple-lens insight generation• Differentiated value proposition
MOBILIZE	Do you create new business models that provide defensible, robust, and scalable profit sources?	<ul style="list-style-type: none">• Exploration of new business models• Changing value-chain economics• Diversifying profit streams• Delivery – model changes and new customer groups



Roles and Responsibilities for INNOVATION vary by Leader Level

Our Role in Innovation Depends on Where We Sit



2017 Center for Creative Leadership. <https://www.ccl.org/>



C-CLM Collaborates with TF-YS

32

Keynote Articles

• Clin. Chem. 58:3, 2012, 505-10.

• Clin. Chem. 61:9, 2015, 1129-32.

Clinical Chemistry 58:3
502-510 (2012)

Special Report

Advancing Laboratory Medicine through Innovation: A Tale of Six Inventors

Moderator: Nader Rifai^{1*}

Inventors: Eleftherios P. Diamandis,² Y.M. Dennis Lo,³ Larry J. Kricka,⁴ Peter Wilding,⁵ Jack H. Ladenson,⁶ and Carl T. Wittwer⁷

"Discovery consists of seeing what everybody has seen and thinking what nobody has thought." Albert von Szent-Gyorgyi (Nobel Prize in Physiology or Medicine, 1937)

In a recent issue of *Science Translational Medicine* (1), Yock and colleagues of Stanford University discuss the opportunities and challenges of developing a discipline of medical technology innovation. Innovation is defined as "inventiveness put to use"; a discovery that results in a commercial product or service. In this provocative article, the authors discuss two main streams of educational theory and practice that together form the basis for teaching innovation: design thinking and entrepreneurship education (Fig. 1). Design thinking focuses on identifying the opportunity and need, developing the idea to solve the problem, building the prototype, and testing the product, while entrepreneurship education provides an introduction to the skills and approaches required to take a product to service and successfully commercialize it. The authors argue that medical technology innovation is the ideal environment for interdisciplinary team building combining physicians, engineers, scientists, and business professionals.

In laboratory medicine, numerous scientists and physicians have been able to successfully launch their inventions into the marketplace; inventions that changed the practice of medicine. Six of those inventors were invited to share their success stories with the readers of *Clinical Chemistry*. How did they do it? What influenced most their success? What were the major drivers for their pursuits? Did they have formal training in the innovation process? In addition, they were asked to score, in terms of relevance, 20 factors that influenced their endeavors (Fig. 2).

My Personal Journey in Laboratory Medicine Innovation: From Industry to Academia. Eleftherios P. Diamandis



There is no single recipe for success in innovation and there is a myriad of examples of highly successful entrepreneurs who have not taken a single course in entrepreneurship. I will summarize some of my own experiences as a scientist and innovator and comment on competencies that I acquired. I believe that the cornerstones to my apparent successes were my undergraduate degree in chemistry (1976) and my PhD in analytical chemistry (1979). This training made me an analytical biochemist, versatile in the art of quantitative measurements. These skills were complemented nicely with my postdoctoral training in clinical chemistry (1982-1984) and my medical degree (1986).

My desire to return from Greece to Toronto as a professional was hampered by the Canadian immigration laws of that time, which stipulated that recruitment of foreign individuals must be sponsored by companies that needed unique skills. Although at that time I was concerned about working in industry, I had no choice but to accept a position as director of research and development of a small biotechnology company, CyberFluor, in 1986. CyberFluor was interested in developing highly sensitive nonisotopic immuno-

¹ Department of Laboratory Medicine, Children's Hospital Boston, Boston, MA and Department of Pathology, Harvard Medical School, Boston, MA; ² Department of Laboratory Medicine and Pathobiology, Department of Pathology and Laboratory Medicine, Mount Sinai Hospital, and Department of Clinical Biochemistry, University Health Network, University of Toronto, Toronto, Ontario, Canada; ³ Li Ka Shing Institute of Health Sciences and Department of Chemical Pathology, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong; ⁴ Department of Pathology and Laboratory Medicine, University of Pennsylvania Medical Center, Philadelphia, PA; ⁵ Department of Pathology and Laboratory Medicine, University of Pennsylvania Medical Center, Philadelphia, PA;

PA; ⁶ Division of Laboratory and Genomic Medicine, Department of Pathology and Immunology, Washington University School of Medicine, St. Louis, MO; ⁷ Department of Pathology, University of Utah Health Sciences Center, Salt Lake City, UT and ARUP Institute for Clinical and Experimental Pathology, Salt Lake City, UT.

* Address correspondence to the moderator at: Children's Hospital Boston, Department of Laboratory Medicine, 300 Longwood Ave., Boston, MA, 02115. Fax 617-730-0282; e-mail nader.rifai@childrens.harvard.edu. Received October 31, 2011; accepted November 1, 2011. Previously published online at DOI: 10.1373/clinchem.2011.178582

502

Clinical Chemistry 61:9
1129-1132 (2015)

Q&A



Disruptive Innovation in Laboratory Medicine

Moderator: Nader Rifai^{1*}

Experts: Eric Topol,² Eugene Chan,³ Y.M. Dennis Lo,⁴ and Carl T. Wittwer⁵

Over the last 5 decades, laboratory medicine has witnessed a remarkable wave of innovations that transformed the field from a peripheral to a central player in healthcare delivery. These advances enabled the introduction and performance of new tests on a large scale, some in a decentralized setting, in an accurate and a precise manner, thus leading to better diagnosis, more accurate prediction of disease prognosis, and improved patient management. This evolution was the result of both sustaining and disruptive innovation, the latter being a new concept, technology, product, or process that is at first inferior to an existing one but with time it improves, becomes superior to it, and eventually replaces it. Some examples of disruptive innovation in laboratory medicine include continuous flow analysis, dry reagents on dipsticks, pregnancy home testing, PCR, point-of-care testing, and use of MALDI-TOF mass spectrometry for pathogen identification. Although sustaining innovation steadily drives progress, paradigm shifts usually occur only with disruptive thinking. With the escalating cost of healthcare and the prediction that it will soon reach 20% of the annual GDP in the US, bold measures and disruptive approaches in delivering effective and economical clinical laboratory testing are more needed than ever. In this Q&A, a group of inventors, entrepreneurs, and cutting-edge scientists share their views on sustaining and disruptive innovation in laboratory medicine.

Describe briefly the core technology or concept of your innovation.

Eric Topol: Smartphones as the hub of medicine going forward, capable of performing routine laboratory tests (with suitable hardware additions), real-time,



Eugene Chan: We have developed the rHEALTH sensor, which is a small, portable device designed to take a single drop of blood and give a read-out for many different laboratory tests. This is a notable departure from existing delivery of healthcare, where there are central laboratories required to provide this information. The rHEALTH is designed to democratize biomedical information, allowing individuals, anywhere, to get access to their results.



Image Courtesy of XPRIZE

Y.M. Dennis Lo: I work in the area of noninvasive prenatal testing (NIPT). My group first reported in 1997 the presence of cell-free fetal DNA in maternal plasma. We then spent the next 18 years translating

¹ Departments of Laboratory Medicine and Pathology, Boston Children's Hospital and Harvard Medical School, Boston, MA; ² Gary and Mary West Endowed Chair of Innovative Medicine, Professor of Genomics, Department of Molecular and Experimental Medicine, Chief Academic Officer, Scripps Health, The Scripps Research Institute, La Jolla, CA; ³ Founder, President and Chief Scientific Officer of DNA Medicine Institute, Cambridge, MA, winner of the Nokia Sensing XCHALLENGE, one of the 6 finalists in the Qualcomm Tricorder XPRIZE; ⁴ Professor of Chemical Pathology at the Chinese University of Hong Kong and the Director of the Li Ka Shing Institute of

Health Sciences, Hong Kong, China, and a Fellow of the Royal Society; ⁵ Professor of Pathology at the University of Utah Medical School in Salt Lake City, UT.

* Address correspondence to this author at: Department of Laboratory Medicine, Boston Children's Hospital, 300 Longwood Ave., Boston MA 02115. E-mail nader.rifai@childrens.harvard.edu. Received May 20, 2015; accepted June 4, 2015. © 2015 American Association for Clinical Chemistry

1129





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The Role of Management Innovation and Leadership
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33

Innovation Leadership for the Clinical Laboratory Management



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What is Innovation?

34

“The design, invention, development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers and financial returns for a firm”

Advisory Committee on Measuring Innovation in the 21st Century Economy.

Innovation in laboratory medicine takes 3 major forms.



Ref: Omachonu & Einspruch. The Innovation Journal: The Public Sector Innovation Journal. 2010 ;15:1-20.



Two Innovation Impacts...

35

Non-disruptive

- Incremental
- Evolutionary
- Sustaining

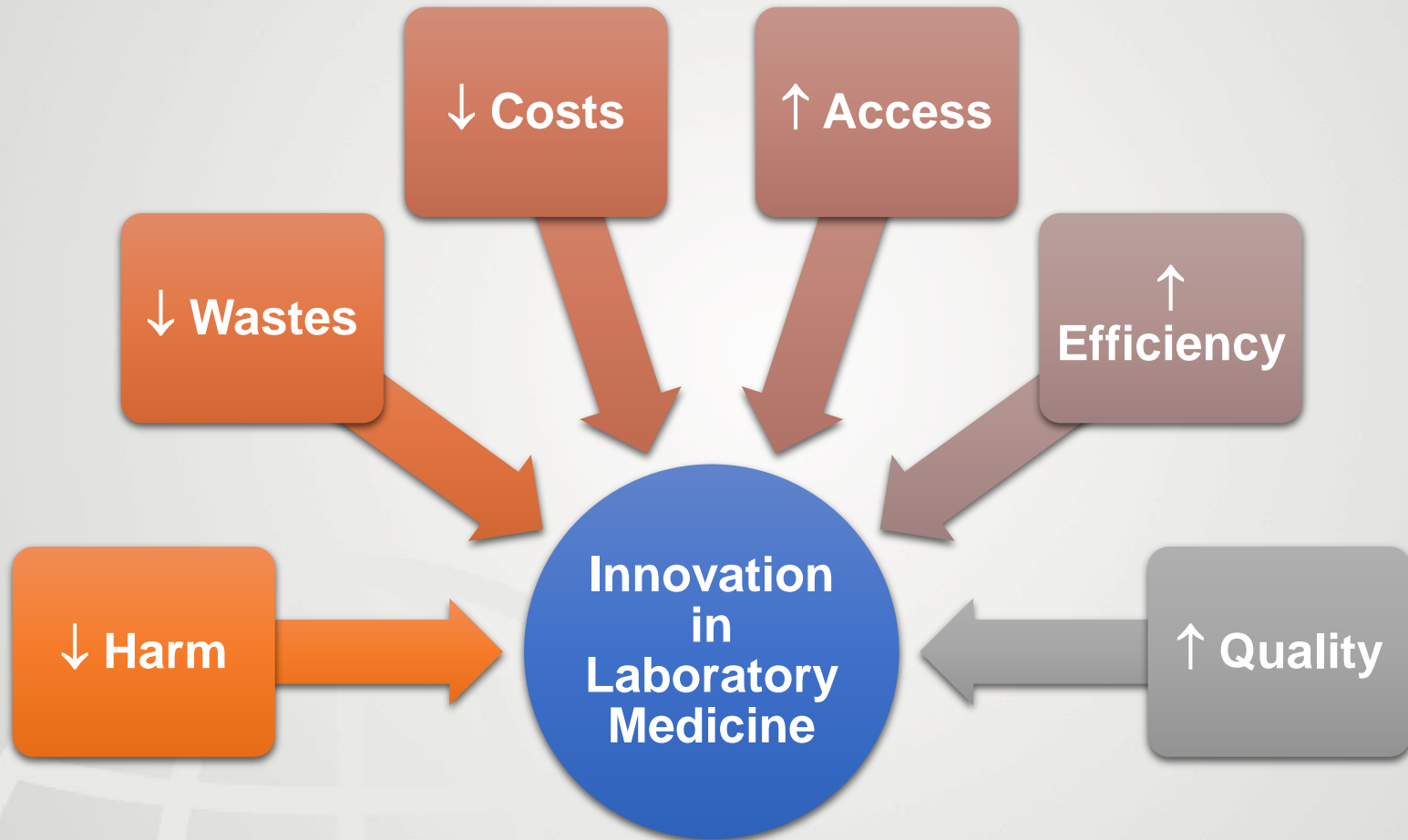
Disruptive

- Radical
- Revolutionary
- Transformational





Drivers of Innovation





Polling Question

37

- <http://etc.ch/PaPM>
- <https://directpoll.com/r?XDbzPBdJ3cBY1aFpzXOWkgQAsQVAnMoJs4rJh7YGg8>





Polling Question

38

- <http://etc.ch/PaPM>
- <https://directpoll.com/r?XDbzPBdJ4dCZ2bGq0YPXlhRBtRWBoNpKt5sKi8ZHh9>





Culture: The Major Barrier to Innovation

39

- **Culture** is the collection of beliefs and behaviors of a group of people.
 - It affects the operation and strategic vision of an organization
 - Shaped by leadership
- Innovation is difficult in cultures that are:
 - Hierarchical
 - Formal
 - Risk Averse



No innovation will survive that the organizational culture cannot tolerate.



Drivers & Challenges to Innovation

40

Resource Sufficient



Changing Patient Demographic
Changing Disease Spectrum
Managing Costs
Quality Improvement

Resource Challenged



Service Gaps
Adequacy of Care
Rising Incidence of Chronic Disease



Risk aversion
Fear of Failure
Financial Implications
Acceptance by intended physicians & patients



Constrained Budgets
Constrained Resources
Constrained Infrastructure



Culture

- Provide Resources
- Remove Barriers
- Open to New Ideas
- Build on Differences

Teamwork

- Internal & External
- The “right people”
- Time commitment
- All levels

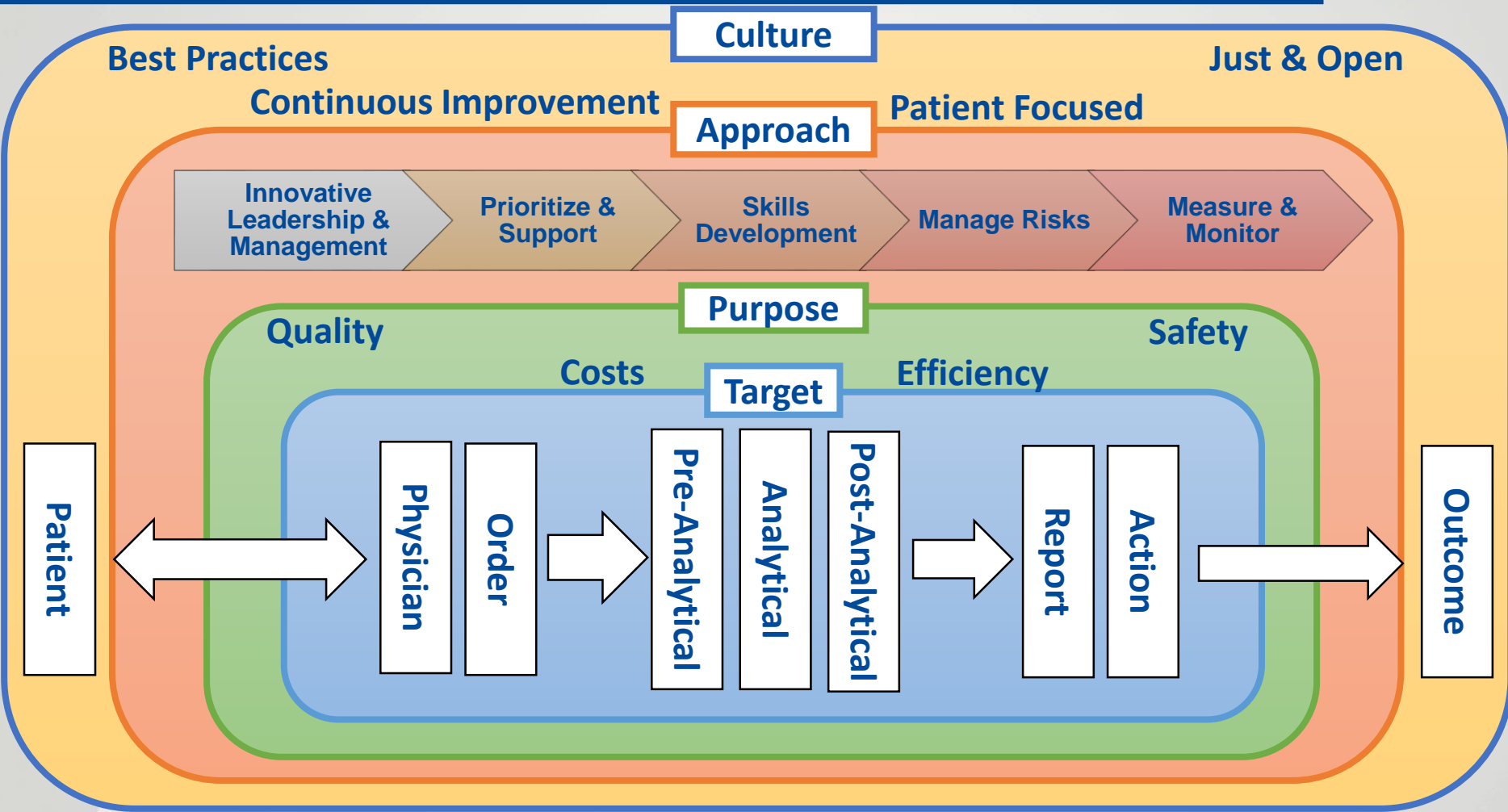
Piloting

- Small and Focused
- Designed for success
- “Living Lab”
- “Err on the side of execution – not planning”



Innovation Requires a Framework

42





A "HYBRID MODEL" for Clinical Laboratory Leadership

43

We need a
Laboratory Leadership Model
one that balances technology,
strategy and innovation.





Leaders and The Clinical Laboratory Innovation Process

Build Capacity

Build Momentum

Create Culture

Design & Create

Build Teams

- Stakeholders
- Frontline staff
- Vendors
- Experts

Measure & Monitor

Use Metrics

- Quality
- Cost
- Efficiency
- Safety

Pilot & Study

Start Small

- “Living Lab”
- “Learn early and fail cheap”

Standardize

Innovate

- Optimize
- Disseminate
- Customize
- CQI





C-CLM Clinical Laboratory Leadership Training Certificate Program

45

**Self Discovery &
Self
Management**

Leading Change

**Laboratory
Leadership &
Management:
Inside and Out**

**Inspiring & Preparing
Innovative Leaders for the Clinical Laboratory**



