

Developing “disruptive” Innovation Within Emory

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INNOVATE EMORY Abstract

The Challenge: The healthcare industry is undergoing a period of transformational changes that will once again reshape the delivery of healthcare in America. In order to succeed in this challenging environment, healthcare providers must focus on offering services in new and creative approaches while also enhancing the value consumers perceive from these services. Discovery and innovation permeates healthcare; however, it is more often focused on improving the current healthcare delivery model rather than redefining it. While healthcare leaders continue to generate incremental changes in care delivery, an abundance of new markets entrants are searching for innovations that will lead to “disruptive” innovations that will greatly influence the industry and ultimately seize market share from existing providers.

The Purpose: To foster creativity and harness new ideas for “disruptive” innovation across Emory. The goal of the *INNOVATE EMORY* program is to create a platform for inspiring, collecting, evaluating and disseminating ideas and innovations that are truly game-changing, impactful and have a the potential for broad application.

The Solution: The WAIT² team believes that Emory Medicine has the resources and vast expertise to facilitate true “disruptive” innovation by harnessing those ideas that will drive significant improvements in the care delivery model, allowing Emory to become the market disruptor rather than the leader that is disrupted. The WAIT² team proposes that *INNOVATE EMORY* be the mechanism to facilitate this innovation, by providing a platform for inspiring, collecting, evaluating, rewarding and disseminating impactful ideas. Using the framework depicted below the WAIT² team proposes the establishment of the *INNOVATE EMORY* Challenge. The quarterly Challenges may be open to any topic or have a specific and clearly requested problem, opportunity, targeted issue or need for which innovative ideas will be solicited. Regardless of whether a quarterly review cycle has a specific Challenge topic, any and all “disruptive” innovations from within the Emory community will be considered and reviewed. The ideas will be evaluated for potential investment support by the *INNOVATE EMORY Advisory Board* using a formal review process.



Initially, team WAIT² proposes that the *INNOVATE EMORY* program be a component of and report to leadership within the Woodruff Health Sciences Center. The program will be open to all employees and faculty within the Woodruff Health Sciences Center, and will engage and work collaboratively with existing innovation efforts and resources across the organization. It is recommended that in addition to the potential investment support innovator(s) may receive to develop and implement their ideas within Emory, that additional incentive/rewards be created in order to have the highest likelihood to generate impactful ideas for the organization.

By harnessing the creativity of our internal expertise and **focusing on the development of “disruptive” innovation and market shifting ideas**, Emory can make significant and impactful changes to the healthcare delivery model and ultimately become a market disruptor.



INNOVATE EMORY Program

The Purpose: To foster creativity and harness new ideas for “disruptive” innovation across Emory. The goal of the *INNOVATE EMORY* program is to create a platform for inspiring, collecting, evaluating and disseminating “game changing” ideas that are truly impactful, innovative and have a the potential for broad application.

The Concept: The healthcare industry is undergoing a period of transformational changes that will once again reshape the delivery of healthcare in America. Harnessing new ideas and implementing “disruptive” innovations will be critical to meeting the demand for enhancing value for the consumer and sustaining competitive advantage.

INNOVATE EMORY will focus on “disruptive” innovation – those ideas that will drive significant improvements in the care delivery model while creating value and/or competitive advantage for the organization. Clayton Christensen’s theory of “disruptive” innovation explains the phenomenon by which an innovation transforms an existing market or sector by **introducing simplicity, convenience, accessibility, and affordability where complication and high cost are status quo**. Typically, a “disruptive” innovation is initially formed in a niche market that may appear unattractive or inconsequential to industry incumbents, but eventually the new product or idea completely redefines the industry.

The Need: Organizations that focus on “disruptive” innovation have recognized that continuing to make incremental changes to enhance products or services is no longer an adequate strategy to attract new markets or grow existing ones. Large, successful companies tend to pursue these “sustaining innovations” at the higher tiers of their markets because this is what has historically helped them succeed. Many companies continue to presume that achieving the greatest profitability will be accomplished by charging the highest prices to their most demanding and sophisticated customers at the top of the market.

However, by doing so, companies unwittingly open the door to “disruptive” innovations” at the bottom of the market. An innovation that is “disruptive” allows a whole new population of consumers at the bottom of a market access to a product or service that was historically only accessible to consumers with a lot of financial resources or skill.

There are numerous examples from other industries of national giants like Kodak and Blockbuster being displaced because they continued to focus on “sustaining innovation” rather than meeting the challenges of the new marketplace.

Using nearly any metric or measure, most could argue that Emory fits the profile of a large, successful market leader who very effectively implements “sustaining innovations.” The risk to Emory is that new players are entering what has historically been a traditional healthcare market with the intent of significantly modifying the care delivery model. Innovative arms of giants from other industries such as Walmart, and new start ups like ZocDoc and MedZed are all consistently entering the healthcare market. While there is a wide variety of niche products and services that these new organizations offer, their goal is the same; to fundamentally change the healthcare delivery model.



The Solution: The WAIT² team believes that Emory Medicine has the resources and vast expertise to facilitate true “disruptive” innovation, and be the market disruptor rather than the leader that is disrupted. By evaluating other markets and organizations, it is abundantly clear that “disruptive” innovation does not occur organically within an organization. A clear framework and fundamental institutional support is critical for success in fostering this type of innovation.

The WAIT² team proposes that *INNOVATE EMORY* be the mechanism to facilitate this innovation, by providing a platform for inspiring, collecting, evaluating, rewarding and disseminating impactful ideas. Explained in further detail throughout the following document, the WAIT² team’s plan involves using a both an open ended submission process as well as a quarterly idea generation and evaluation process to “challenge” the experts within the Emory community to submit ideas with the potential for “disruptive” innovation.

INNOVATE EMORY

Proposed Model and Structure

Organizational Overview: Initially, team WAIT² proposes that the *INNOVATE EMORY* program be a component of the Woodruff Health Sciences Center, and accordingly, the program will be open to all employees and faculty within the Woodruff Health Sciences Center. The *INNOVATE EMORY* Project Manager and Innovation Council will report to leadership within the Woodruff Health Sciences Center. While the intended focus of the program will be to disrupt and advance the healthcare delivery model, it is critical that all entities within the Woodruff Health Sciences Center be a part of and support the process.

The *INNOVATE EMORY* program will engage and work closely with the Office of Technology Transfer (“OTT”), the Office of Development, Emory Bright Ideas, Emory Healthcare Project Management Office (“PMO”) and other potential collaborative groups to either source and/or support ideas submitted through the *INNOVATE EMORY* program.

The Office of Technology Transfer provides comprehensive management of Emory discoveries to maximize their benefit to the University and humanity. OTT works to identify promising technologies and seek intellectual property protection for those inventions that can benefit the public.

The *INNOVATE EMORY* program fundamentally differs from other entities within Emory as it is **focused not on discovery, but developing existing innovative ideas.** As the focus is not on discovery, the traditional aspects and structure within the OTT may not apply in every circumstance. However, by partnering with OTT, and in absence of any other overriding need, the *INNOVATE EMORY* program can assist in ensuring that applicable ideas, with the potential for scalability and commercialization, are identified early and are provided assistance through the process. The quarterly challenges will provide a valuable opportunity for Emory to identify and capture more of the



exceptional and potentially marketable ideas that arise from the expertise across Woodruff Health Sciences Center and in particular within the healthcare delivery settings.

Distinction: *INNOVATE EMORY* fills a unique, yet complimentary need within the Emory system. Its goal and purpose differs from existing programs, which have historically focused on discovery, incremental improvements, health services research, cost reduction, etc. The following examples are not entirely inclusive, but highlight the differences between these programs and *INNOVATE EMORY*:

- The goal of the collaborative partners of the Atlanta Clinical & Translational Science Institute rapidly and efficiently translates scientific discoveries to impact all populations of the Atlanta community and beyond.
- The Emory Healthcare Innovation Program focuses on developing Emory’s Health Services Research portfolio. Health Services Research is commonly defined as a multidisciplinary scientific field that examines how people get access to health care practitioners and health care services, how much care costs, and what happens to patients as a result of this care.
- Emory Bright Ideas, a program originally initiated in support of cost reduction goals and preparation for Emory and Deloitte’s Value Acceleration Process (“VAP”), has recently been restarted to support process improvement and waste/cost reduction. As previously mentioned, these “sustaining innovations” fill a critical need, but are incremental in nature and continue to support the model whereby the greatest profitability will be accomplished by charging the highest prices to their most demanding and sophisticated customers at the top of the market.

In contrast, **Innovate Emory focuses on the development of “disruptive” innovation and market shifting ideas, rather than research, discovery and incremental improvement.** Further, *INNOVATE EMORY* takes an “Intrapreneurship” focus. Intrapreneurship, as opposed to entrepreneurship, is an individual’s effort which translates a creative thought into a new, innovative process, product, procedure, strategy or service for the organization, rather than to create their own business. By applying our vast internal expertise to the challenges of the changing healthcare environment we can make significant and impactful changes to the healthcare delivery model.

Innovation Funding: As a part of the Emory Medicine three part Financial Strategic Alignment (“FSA”) process, funds have been preliminarily identified to invest in the funding and development of “disruptive” innovation, including ideas generated through a program such as *INNOVATE EMORY*. The most recent FSA group, FSA III, developed the framework for identifying Strategic Investment Funds (“SIF”) from Emory Healthcare and Emory School of Medicine. A percentage of these funds will be allocated to invest in key strategic initiatives and priorities. Current recommendations allocate approximately ten percent (10%) of these funds in support of developing “disruptive” innovation, estimated to be \$1.5M – \$2.0M per year.

These funds will be the key financial support needed to back the investment in initiatives through *INNOVATE EMORY*.



“Disruptive” Innovation –

Review and Development Process: The *INNOVATE EMORY* program will establish the structure to formally review innovative proposals quarterly, through a process called the *INNOVATE EMORY* Challenge (the “Challenge”). The Challenge will be announced quarterly via the intranet and communicated broadly using a variety of employee communication mechanisms. All staff and faculty of the Woodruff Health Sciences Center will be eligible, and encouraged to participate.

The Challenges may be open to any topic or have a specific and clearly requested problem, opportunity, targeted issue or need for which innovative ideas will be solicited. Regardless of whether a quarterly review cycle has a specific Challenge topic, any and all “disruptive” innovations will be considered and reviewed.

INNOVATE EMORY Challenge Process (Open Ended):



The following framework outlines the process by which an innovative idea is submitted and progresses through the *INNOVATE EMORY* Challenge process.

1. Idea Submission:



Innovators will submit ideas via the forms on an online intranet portal. A standard submission form will be utilized to ensure consistent information is available for the initial review of ideas. (See Exhibit 1 for sample Submission Form template).

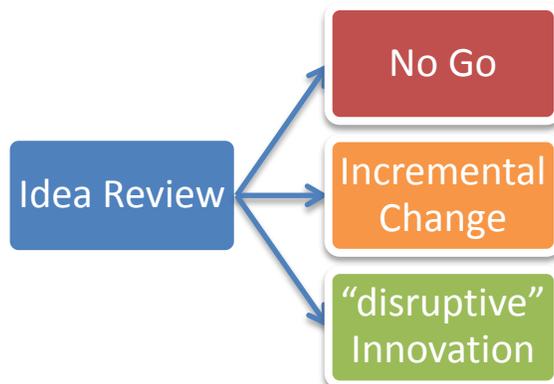
2. Idea Review:



All ideas will be reviewed by the *INNOVATE EMORY* Project Manager, and volunteer subject area experts on an ad hoc basis, using specific criteria that will evaluate readiness for presentation to the Innovation Council as well as provide a high level analysis of organizational impact. Criteria will include:

- a. Completeness of submission materials
- b. Reasonableness/ feasibility
- c. Validity as a new idea
- d. High level analysis of the potential impact and scalability

Initial categorization will include the following, with “disruptive” innovation ideas continuing through the innovation cycle:



No Go

No Go – certain ideas that are submitted may be incomplete or not feasible for the organization to consider. Communication will be provided to the idea submitter that the decision was made not to move forward with the idea at this time. Potential examples could include:

- 100% covered benefits structure
- Eliminate the Cardiovascular services line
- No cap on merit increases



Incremental Change

Incremental Changes – These ideas, while critical to Emory and have the potential to have a material impact on the organization, fit the definition of incremental change, not “disruptive” innovation. Incremental changes have an impact on existing delivery models, refining or improving concepts already in place. Incremental change ideas will be referred to the appropriate department chair/entity executive and/or Emory Bright Ideas program for further evaluation and resourcing. Communication will be provided to the idea submitter indicating that the idea was well received but was not being moved forward for further evaluation by the innovation council. Potential examples of incremental changes may include:

- Convert Nitric Oxide use to Flolan
- Implement dedicated EKG support in ED
- Develop internal compounding pharmacy
- Create a platelet management program
- Endoscope processing
- Patient scheduling protocols

“Disruptive” Innovation

“Disruptive” Innovation – Ideas that upon initial review fit the characteristics of being a “disruptive” force, which include introducing simplicity, convenience, accessibility, and affordability where complication and high cost are status quo. These ideas will be moved forward for further evaluation through the Innovation Cycle. Some real and theoretical examples of “disruptive” innovations are:

- i. eICU
- ii. Primary Care “on demand”
- iii. Theranos Wellness Centers
- iv. TBD...

3. Evaluate



The “disruptive” innovation ideas selected to move forward in the innovation challenge may be in different stages of the development cycle with various resourcing needs. It is anticipated that some ideas will be fully developed with pilot projects complete and submitted for broader support and implementation. However, ideas that are conceptual in nature and in need of organizational support for further development will be highly encouraged as well.

Submitters selected to move forward with official review will be invited to the quarterly review meeting to make a brief presentation on their idea, to the *INNOVATE EMORY* Advisory Board.



The Advisory Board (see Exhibit 2 for proposed structure) will include internal and external business leaders, clinical leaders and entrepreneurial experts. The cross section of experience will be critical for the Advisory Board to be able to evaluate innovative ideas which may challenge the status quo, while being able to provide guidance and recommendation for the best model of investment for further development.

The presentation can be in person and/or via previously recorded YouTube video (See Exhibit 4 for Evaluation deliverables). The presenter will be expected to explain their submission, resources required (financial as well as expertise) and sell the council on the “value created.” The “Shark Tank” like approach will evaluate the idea, as well as recommend, if any, grant or investment structure.

The *INNOVATE EMORY* Advisory Board will review and approve the innovation, the business model and investment structure. In absence of a need for a different ownership and/or investment model, any and all Intellectual Property (“IP”) or patentable products follow the OTT structure.

Modifications to the OTT model will require mutual agreement from the Woodruff Health Science Center, Dean(s), Department Chair(s) and innovator(s). Such modifications may include decisions such as whether funding is provided via a grant-like methodology or a traditional investment approach, with a defined ownership and return/payback structure over time.

Approved innovations will be submitted to the Emory Healthcare Strategic Group (“EHC-SG”) and the Council of Chairs, for approval of alignment with Emory’s mission, vision and values. Review and approval of the business model and approach will reside with the *INNOVATE EMORY* Advisory Board.

4. Develop:



For selected innovations, the Project Manager will work with the submitter to conduct additional vetting of the selected ideas and develop a resourcing proposal and business plan to be presented to Emory Medicine leadership for review.

Based on initial survey results from previous WLA graduates, significant interest exists for volunteers to support the development of innovative ideas (see Exhibit 3 – “WLA Survey Results”). Notably, **100%** of the 61 WLA volunteers that responded to the WAIT2 team’s survey indicated they would volunteer time to assist in the review and/or development of an innovative idea.

In addition, it is strongly recommended that a component of any grant or investment made to the innovator(s), include financial support for 10% of the primary individual's time, not to exceed \$50,000.00. Time is one of the scarcest, yet most critical components to getting any innovation from concept to implementation. Having the original innovator(s) a part of the process will help to ensure future success.

5. Implement



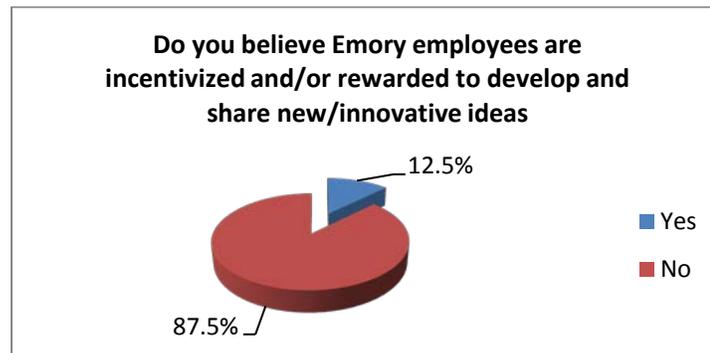
Depending upon the size, scale and scope of the innovation, test markets or segments of Emory may be identified to validate the proof of concept and scalability.

6. Assess / Reward:



As important as any step in the Innovation cycle will be the ongoing assessment and reward. Return on Investment (“ROI”) may come in many fashions, and will be clearly identified prior to extensive development and investment. ROI may be directly financial and easily identified, or more indirect and associated with quality, access, patient satisfaction, etc.

It is recommended that in addition to the potential investment support innovator(s) may receive, that additional incentive/rewards be created. This notion is further supported by the WLA survey results, polling leaders on current incentives:



Based on feedback from Emory HR leaders, team WAIT² proposes the following reward structure:

- | | |
|-----------------------------------------------|------------------------------------------|
| 1. Idea Submission: | 50 EHC Recognize Points |
| 2. Selected to Present to the Advisory Board: | \$100 gift card |
| 3. Innovation Selected to be Developed: | \$5,000 Award (anticipate 2 per quarter) |

INNOVATE EMORY Implementation Plan / Next Steps:

Emory Medicine and Woodruff Health Sciences Center:

1. Approval of the SIF allocation for Innovation Development
2. Approval of the *INNOVATE EMORY* annual operating budget (See Exhibit 5 for detail).
3. Approval of the corporate and organizational structure of the *INNOVATE EMORY* program
4. Development of the *INNOVATE EMORY* Advisory Board
5. Development of the *INNOVATE EMORY* program website
6. Determination of roll-out with or without specific Challenge topics
7. Announcement and communication of the *INNOVATE EMORY* program through multiple and repetitive communication mediums (web, conferences, newsletters, senior leadership, etc.)



EXHIBIT 1



EMORY

WOODRUFF
HEALTH
SCIENCES
CENTER

Personal Information:

Name:	Email:
Phone Number:	Location:
Brief Bio (Education & Work Experience):	

Problem Statement:

What healthcare challenge or opportunity does your idea/concept/product/service address and why have you focused in this area?

Proposed Solution/Innovation:

Please detail your proposed approach for solving this problem or capturing this opportunity:

How is your proposed approach innovative? Is there research on this topic currently?

What are the barriers to your proposed approach?

What are the inherent risks with your proposed approach, and how do you plan to address them?

If successful, can your proposed approach be replicated?

Goals/Objectives and Metrics/Quantitative Impact:

What does success look like, and how do you measure it? Please include specific quantitative (as well as qualitative as you see fit) metrics and timeframes for accomplishing the discrete goals:

Resources: Resources needed:



EXHIBIT 2

***INNOVATE EMORY* Advisory Board:**

The recommendation for the Council composition will be:

1. Two (2) WLA volunteer(s)
2. One (1) Emory Department Chairs (to rotate on an annual basis)
3. One (1) Emory Department Administrators (to rotate on an annual basis)
4. Two (2) EHC entity “C” level executives (CEO, COO, CNO, etc.)
5. One (1) Goizueta professor, specializing in entrepreneurship/innovation
6. Two (2) Proven/experienced researchers with prior patent history
7. Two (2) External to Emory business leader/entrepreneur/venture capitalist



EXHIBIT 3 WLA Fellow Survey

5. Does Emory support and foster the development of new/innovative ideas throughout all levels of the organization?

Answer Options	Response Percent	Response Count
Yes	37.1%	23
No	62.9%	39
<i>answered question</i>		62
<i>skipped question</i>		0

6. Do you believe employees are incentivized and/or rewarded to develop and share new/innovative ideas?

Answer Options	Response Percent	Response Count
Yes	13.1%	8
No	86.9%	53
<i>answered question</i>		61
<i>skipped question</i>		1

7. Does Emory practice a culture of innovation and knowledge sharing on a daily basis?

Answer Options	Response Percent	Response Count
Yes	21.0%	13
No	79.0%	49
<i>answered question</i>		62
<i>skipped question</i>		0

8. Would you be willing to review a project/proposal of a new innovative idea, that would be in your area(s) of expertise?

Answer Options	Response Percent	Response Count
Yes	98.4%	61
No	1.6%	1
<i>answered question</i>		62
<i>skipped question</i>		0

9. Would you be willing to serve as a mentor for the development or implementation of a particular project?

Answer Options	Response Percent	Response Count
Yes	91.9%	57
No	8.1%	5
<i>answered question</i>		62
<i>skipped question</i>		0



EXHIBIT 4

INNOVATE EMORY **Innovation Advisory Board Presentation Deliverables**

- 1) *INNOVATE EMORY* Submission Form
- 2) One (1) to Five (5) page synopsis of Innovative Idea
- 3) Resource request for next stage development
- 4) Five (5) minute presentation of Innovation Idea
 - a. Presentation can be made live with collateral materials or via a previously submitted YouTube video



EXHIBIT 5

DRAFT *INNOVATE EMORY* Annual Operating Budget

***INNOVATE EMORY* Annual Operating Budget**

Fixed Start-up Operating Expenses

Project Manager ¹	\$116,850
Web Development ²	\$2,500
Internal Communications ³	\$3,500
External Communications	\$5,000
Advisory Board Selections ⁴	\$2,000
TOTAL	\$129,850

Notes:

1. Project Manager to initially be jointly hired/shared with the EHC Project Management Office (PMO)
2. Web development expenses are internal Emory resources
3. Internal Emory communications are provided by internal Emory resources
4. Advisory Board Presenters (\$100 per presenter). Assumes 20 presenters per Fiscal Year

**The annual operating budget does not include the use of Strategic Investment Funds (SIF) for investment in innovation(s) selected by the *INNOVATE EMORY* Advisory Board. Each selection will include a negotiated, and agreed upon, budget for the selected innovator(s). Use of SIF dollars may include, but are not limited to:

- Innovator(s) salary support
- Business development
- Legal fees
- Market research

Initial FSA estimates project total possible availability of SIF dollars to be approximately \$1,500,000 - \$2,000,000.



EXHIBIT 6

INNOVATE EMORY **Advisory Board Sample Review Questions**

- 1) What Problem do you solve/ opportunity do you capture?
- 2) What do you bring to the table? (experience/ personal story to justify a gamble)
- 3) Is your idea/product unique?
- 4) What assistance do you need to continue to develop your idea?
- 5) What type and how much value can you ultimately deliver?
- 6) How big is your market (how many people/ entities will use it)?
- 7) How difficult will it be to develop?
- 8) Who are the stakeholders for this?
- 9) What obstacles will you face?
- 10) What are the existing alternatives?
- 11) How does your proposal fit in with our mission, core values and strategic plans?
- 12) How does it add value to the Emory brand?
- 13) Does it provide a competitive advantage?
- 14) Is the idea scalable?
- 15) Does it leverage core resources and capabilities?



EXHIBIT 7

Innovation Advisory Board Selection Criteria

Source: AHRQ "A Decision Maker's Guide to Adopting Innovations"

1. Does the innovation fit?
2. What is the scope?
3. Will the innovation require organization wide spread change?
4. Where has it been implemented?
5. Does it further our goals?
6. Will it address one of our problems/ opportunities – if so what type?
7. What is the extent of the problem/ opportunity?
8. What causes the problem?
9. What is the perceived importance of the problem/ opportunity?
10. Does it address the root cause of the problem?
11. Will it spawn other problems?
12. What is our vision for success for the innovation?
13. Is it compatible with our organization?
14. Should we do it here?
15. What are the potential benefits?
16. What resources will we need to implement the innovation and what do they
17. What is the cost?
18. What are the potential cost offsets?
19. What are the opportunity costs of adopting the innovation?
20. Do we have the human resources and expertise to support it?
21. Do we have the infrastructure to support it?
22. Will we need new Information technology?
23. Can we build a business case?
24. What are the risks?
25. Can we do it here?
26. Are we ready for this change?
27. What changes will we have to make?
28. What structural changes will be needed?
29. What process changes will be needed?
30. Do we have the ingredients for success?
31. Can we identify innovation champions?
32. How will we measure the impact of the innovation?
33. Can we try the innovation first?
34. How will we implement the innovation?