
Marketing a Therapeutic BioMEMS Activity

Instructor Guide

Notes to Instructor

This Therapeutic BioMEMS Activity is an activity in which the participant designs a marketing brochure for a specific Therapeutic BioMEMS. This activity and its related primary knowledge and assessment are part of the *Therapeutic BioMEMS Learning Module*.

Therapeutic BioMEMS Overview Learning Module:

- Knowledge Probe (pre-test)
- Therapeutic BioMEMS Overview PK
- **Marketing a Therapeutic BioMEMS Activity**
- Final Assessment

Description and Estimated Time to Complete

This activity gives you the opportunity to further explore a specific bioMEMS therapeutic device by creating a brochure for the marketing of the device. If you have not reviewed the reading material on therapeutic bioMEMS (the PK) you should do so before beginning this activity.

Estimated Time to Complete

Allow at least two hours for this activity.

Introduction

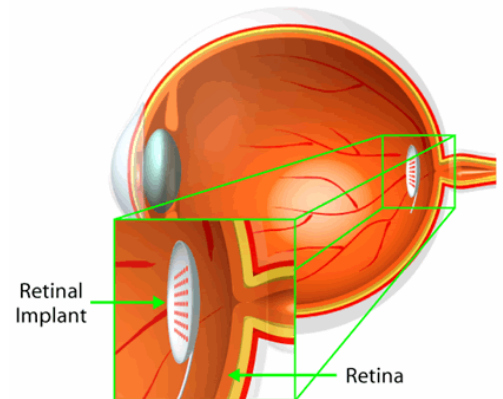
In medicine, therapeutics is the process of caring for the patient in a comprehensive manner. Therapeutics includes preventing disease as well as managing disease or disease specific problems. MEMS and bioMEMS are currently being designed that will revolutionize therapeutic medicine.

There are several therapeutic devices already on the market and others at the human testing stage. Examples include

- minimal invasive surgery,
- drug delivery,
- treatment of cardiovascular diseases, diabetes and cancers,
- applications in neurology, ophthalmology, audiology, and
- applications in dermabrasion and tissue engineering.

The graphic illustrates an artificial retinal implant that is used to correct vision problems caused by disease.

One of the challenges of bioMEMS is how to market these devices to ensure the public that they are safe, and more effective than the current options.



Activity Objectives and Outcomes

Activity Objectives

- Demonstrate your knowledge of a bioMEMS therapeutic device by developing a marketing brochure that describes the purpose and function of the device as well as the audience that will benefit.

Activity Outcomes

The expected outcome of this activity is the ability to be able to explain the advantages, design and proper use of one therapeutic device incorporating MEMS technology.

Documentation

- A two-sided, trifold brochure of a bioMEMS therapeutic device.
- A brief summary of your process, research and sources.

Activity: Marketing a Therapeutic BioMEMS

Demonstrate your understanding of bioMEMS therapeutics by developing a marketing tool for a specific device.

Description

Develop a marketing brochure that explains the advantages, design and proper use of one therapeutic device incorporating MEMS technology.

- Select a therapeutic MEMS

Select a specific therapeutic device that incorporates MEMS technology. You may use one of the devices discussed in the supporting primary knowledge unit or you may research for another example.

- Design a marketing brochure for your device

Brochure design and content requirements:

- a. One page, front and back, trifold brochure
- b. Target audience consists of all healthcare workers (e.g. doctors, nurses, technicians)
- c. Brochure must explain how the device works, how to use it, and any other pertinent information that you feel the healthcare worker needs to know about the device.
- d. Information and contact information on your fictitious company.

- Evaluation

Distribute copies of your brochure to the instructor and other activity participants along with the attached Evaluation Checklist.

Evaluation Checklist

Name of the Therapeutic Device: _____

Name of Designer: _____

Evaluate the attached marketing brochure using the following criteria and ratings.

Grading Criteria:	Strongly Disagree	Disagree	Agree	Strongly Agree
<i>Visual Appearance</i>				
Graphics clearly illustrate device	0	1	2	3
Graphics support text	0	1	2	3
Graphics are high quality	0	1	2	3
Information is arranged in a logical order	0	1	2	3
The overall design is effective	0	1	2	3
The overall design is pleasing	0	1	2	3
<i>Content</i>				
The text supports the graphics	0	1	2	3
The text addresses the anticipated audience	0	1	2	3
How the device works is clear	0	1	2	3
How to use the device is clear	0	1	2	3
The benefit to the user is clear	0	1	2	3
The benefit to the patient is clear	0	1	2	3
All information is relevant	0	1	2	3
Contains information about the company	0	1	2	3
I would buy this product	0	1	2	3

Table 1: Evaluation Checklist

Summary

Therapeutic BioMEMS are new to the current market; therefore, the marketing of these devices must be able to provide the information necessary to ensure that the devices are safe, are used safely, and are more beneficial to the users and the patients than current tools.

References

1. "A Pneumatic Haptic feedback Actuator Array for Robotic Surgery or Simulation". C.H. King et al Proceedings of Medicine Meets Virtual Reality 15: in vivo, in vitro, in silico Designing the Next in Medicine, 6-9 February 2007, Long Beach, CA 217-222, 2007
2. "Robot to Enhance Surgery and Teaching." ExpressNews. University of Alberta. August 07, 2007.
3. "Artificial Retina Implant in Phase II". Dana M. Deupree, MD. The Macula Center. March 26, 2008.

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