

**Thies, Kathy**

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**From:** Fluegel, Bradley  
**Sent:** Saturday, January 02, 2016 4:42 PM  
**To:** Thies, Kathy  
**Subject:** Fwd: Attorney Client Priveledged  
**Attachments:** JHU-Theranos Meeting Minutes.pdf; ATT00001.htm

To print.

Begin forwarded message:

**From:** "Leider, Harry" <[harry.leider@walgreens.com](mailto:harry.leider@walgreens.com)>  
**Date:** January 2, 2016 at 12:32:12 PM HST  
**To:** "Fluegel, Bradley" <[Bradley.Fluegel@walgreens.com](mailto:Bradley.Fluegel@walgreens.com)>, "Jhaveri, Nimesh" <[nimesh.jhaveri@walgreens.com](mailto:nimesh.jhaveri@walgreens.com)>, "Reed, Jan" <[jan.reed@wba.com](mailto:jan.reed@wba.com)>  
**Subject:** Attorney Client Priveledged

**Attorney-Client Privileged**

Best,

Harry

Harry L. Leider, MD, MBA  
Chief Medical Officer & Group Vice President

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**From:** Mark Shaver <mshaver@jhmi.edu>  
**Date:** Wednesday, December 23, 2015 at 4:36 PM  
**To:** Microsoft Office User <harry.leider@walgreens.com>  
**Cc:** Mark Cochran <mcochran@jhmi.edu>  
**Subject:** Hopkins - Walgreens Follow Up

Harry

Great seeing you recently. As you requested, please find the attached report on Theranos which as outlined was a review of their proprietary data shared during the discussion with our faculty.

Additionally, we have been working through our legal documents on the expansion of the collaboration agreement, lease for the clinic in the JV store and getting approval for the payment of funds related to our stake in the JV. I anticipate final approvals in the coming week or so, followed by comments to the draft documents the first week in January. Additionally, I am going to reach out to Pat Carroll to discuss the retail clinic opportunity that he presented post Rite Aid merger. Our team would like to explore this opportunity with you.

We look forward to continuing to deepen our partnership with you and your team. In addition, Mark C and I will be in San Francisco for the JP Morgan conference if you or your team would like to meet briefly.

Mark Shaver,  
Vice President, Business Development & Strategic Alliances  
Johns Hopkins Medicine  
1300 Thames Street, Suite 200  
Baltimore, MD 21231  
410-464-6662



## Summary of Hopkins/Walgreens/Theranos Meeting

April 27<sup>th</sup>, 2010

### Johns Hopkins Medicine Participants:

Dr. Frederick Brancati Professor of Medicine & Epidemiology, Director, Division of General Internal Medicine; Director, Diabetes Prevention & Control Core  
Dr. Thomas Kicker Professor of Medicine; Director of Hematology Laboratory  
Dr. William Clark Associate Professor of Pathology; Director of Clinical Pathology Laboratory  
Mark Shaver Head of Strategic Alliances, Johns Hopkins Medicine International  
Bassam Sayad Managing Director, Johns Hopkins Medicine International, Formerly Senior Staff, JH Clinical Pathology

### Walgreens Participants:

Dr. Jay Rosan Vice President, Health Innovation, Walgreens

### Theranos Participants:

Elizabeth Holmes President & CEO, Theranos  
Sunny Balwani Vice Chairman, Theranos

### Innosight Participants:

Erika Johnson Manager, Innosight

### Meeting Objectives:

- Hopkins team was asked to comment on validity and usefulness of Theranos product, specifically related to the science that supports the technology and the application of the technology in a variety of settings including hospital, clinic, laboratory and potentially within Walgreens as an add on to the clinical programs and retail pharmacy business that currently exists.

### Methodology:

- The Hopkins Team reviewed proprietary data on test performance for routine tests (clinical pathology, hematology) and special tests (e.g. tumor markers)
- Theranos presented additional data on technology, test performance, and business vision—and demonstrated technology on site.
- Dr. Rosan commented on Walgreens preliminary strategy to explore expanding into the laboratory space, expanding its health services offerings to include lab and pathology testing within Walgreens retail space.

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**Key Findings:** Based on this evaluation, the consensus of the Hopkins team was as follows:

- The technology is novel and sound. It can accurately run a wide range of routine and special assays.
- The technology is simple enough to be used by non-specialists in the field.
- Special strengths of the technology include:
  - Accuracy
  - Miniaturization (small footprint, portable, usable in the field)
  - Flexibility (can be tailored to needs of variety of clinical venues)
  - Connectivity (connection to centralized control via wireless/web enhances QC and population-based analysis)
  - Adaptability for Research (can be tailored for repeated measures of new targets, e.g. drugs)
  - Cost per study was stated to be significantly lower than currently available on the commercial market
- The Hopkins team thought that the technology would be useful in the retail clinic setting, with the proviso that the throughput for an individual sample (30-45 min) would require multiple units per site and impose an upper limit for group throughput.
- The Hopkins team also thought it would be attractive to consider JHU-Theranos research collaboration around individualized medicine, especially around drug kinetics and response.
- One observation: "The Theranos Technology is not really 'point of care' technology—it's really a traditional lab assay approach, with the attendant accuracy and validity---highly miniaturized. Essentially a 'mini-lab'."
- No major weaknesses were identified.

**Additional Information:**

- Dr. Clark indicated that over the past two years he has had numerous conversations with Theranos about utilizing their technology at Johns Hopkins for research activities. The conversations continue to be favorable and both parties will continue to explore opportunities for collaboration.

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