



# Collaboration Technologies to Support Research and Training Activities

José G. Conde

Caribbean SIG  
Internet2 Fall Member Meeting,  
San Antonio, Texas  
October 5, 2009



# Medical Sciences Campus Schools

- Medicine
- Public Health
- Pharmacy
- Dentistry
- Health Professions
- Nursing

Approximately 3000 students enrolled.



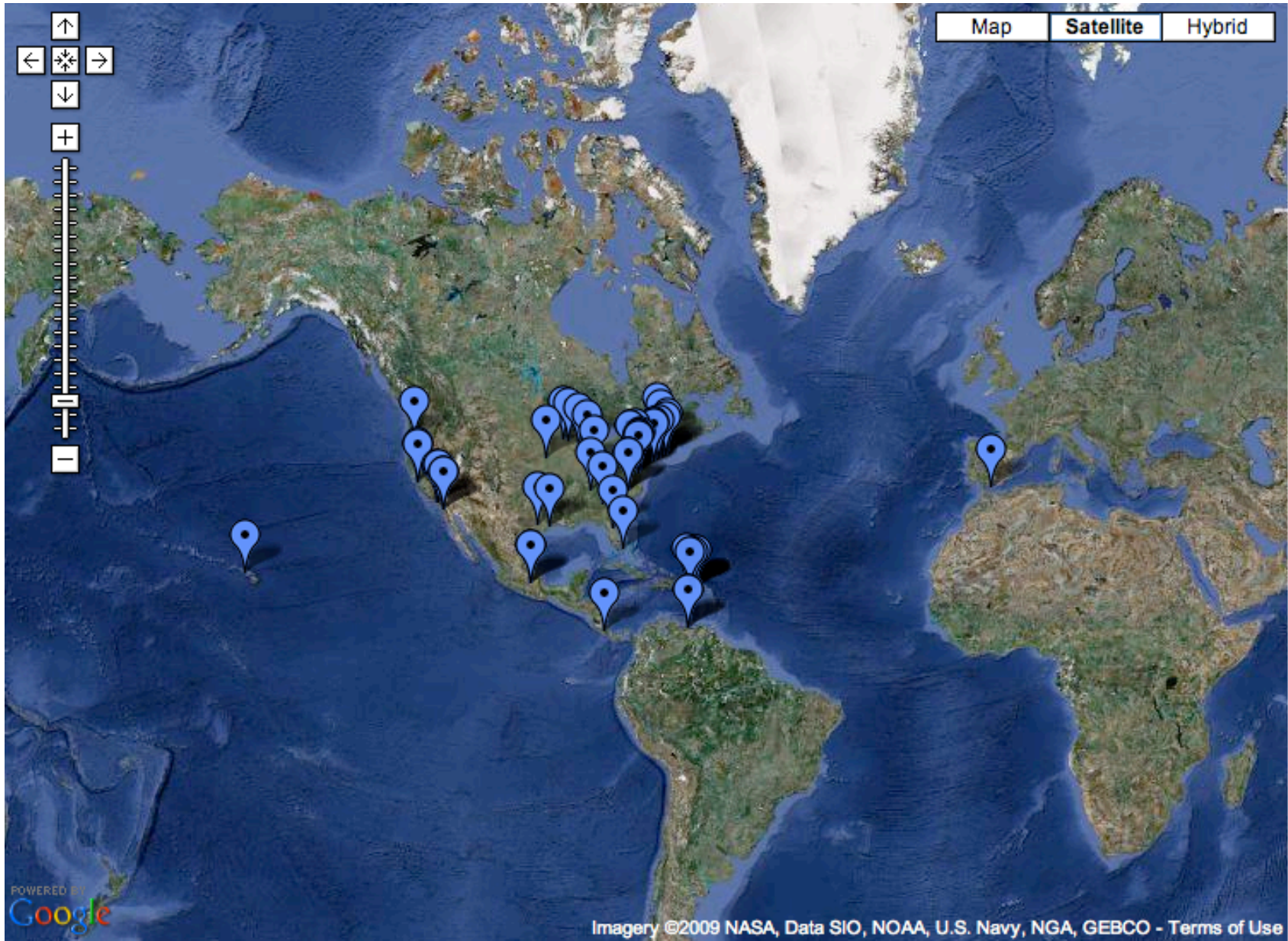
... necessity, who is the mother of invention.

Plato, The Republic, book II



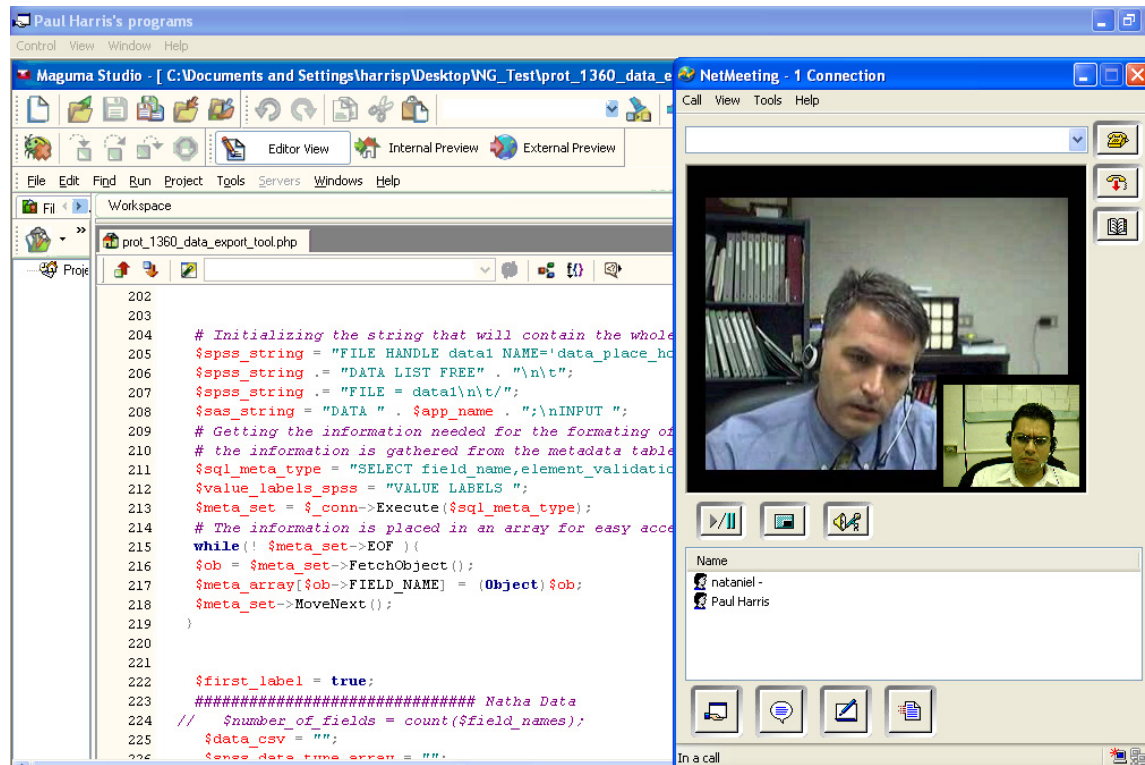
# Videoconference Systems (H.323)







# REDCap Project



Collaboration in the Development  
of the Data Export Module



# REDCap Project



[Consortium Wiki](#) (Login Required)

## Upcoming Events:

- Weekly All-Hands Consortium Meeting - Every Friday, 1PM-2PM CDT
- "REDCap Day" - Friday, October 9th, 2009 ([Register here](#))

[Introduction](#)

[Software](#)

[Consortium Partners](#)

[Become a Partner](#)

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The **REDCap Consortium** is comprised of **59 active institutional partners** from CTSA, GCRC, RCMI and other institutions, and it supports two secure, web-based applications (REDCap and REDCap Survey) designed exclusively to support data capture for research studies. The REDCap application is currently in production use or prototype build-status for more than **860 studies** spanning numerous research focus areas across the consortium, and the recently released REDCap Survey application is now being adopted rapidly by consortium partners. To find out if your institution already has an informatics core running REDCap services, you will find contact information for core resources on the [Consortium Partners](#) page.

Both REDCap and REDCap Survey provide: 1) a stream-lined process for rapidly building a database or online survey, respectively; 2) an intuitive interface for collecting data (with data validation); 3) automated export procedures for seamless data downloads to common statistical packages (**SPSS, SAS, Stata, R**); 4) advanced features, such as branching logic, file uploading, and calculated fields; and 5) a quick and easy software installation process. For more information on each software application, see the [Software](#) page.

## Map of REDCap Consortium Partners



Consortium Partners Multi-Center Partners

## Advantages of REDCap and REDCap Survey

**Availability** - Software is available at no cost for REDCap Consortium Partners.

**Secure and web-based** - Input data or build an online survey from anywhere in the world over a secure web connection with authentication and data logging.

**Fast and flexible** - Conception to production-level database or survey in less than one day.

**Multi-site access** - REDCap databases/surveys can be used by researchers from multiple sites and institutions.

**Autonomous utilization** - Research groups have complete autonomy and control to add new users.

**Export data to common data analysis packages** - Exports raw data and syntax files for SAS, Stata, R, and SPSS.



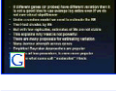



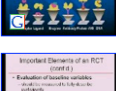

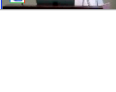
**Fully customizable** - You are in total control of shaping your database or survey.

**Advanced features** - Mid-study modifications, auto-validation, branching logic, and calculated fields.

# Google Video



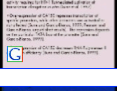

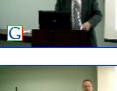
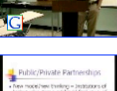



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-  **RCMI Clinical Proteomics Core Facility Inauguration**  
22 min - Aug 2, 2007  
University of Puerto Rico Medical Sciences Campus RCMI C Inauguration August 2, 2007 The Proteomics Discovery Core (G12RR03051)  
<http://video.google.com/videoplay?docid=-6157262405250274>  
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-  **BioDB Microarray Database**  
33 min - Sep 27, 2005  
Puerto Rico. This seminar is part of the RCMI Seminar Serie Medical Sciences Campus. The video is a production of the RCMI Center for Information Architecture in Research.  
<http://video.google.com/videoplay?docid=-8762184032807619>  
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-  **Getting usable Data from Microarrays: It is not as easy as it seems**  
1 hr 12 min - Mar 21, 2005 - ★★★★★ (1 rating)  
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-  **RCMI Clinical Proteomics Core Facility Inauguration**  
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<http://video.google.com/videoplay?docid=45224431543519947>  
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-  **Microevolution and virulence of Dengue viruses**  
1 hr 3 min - Apr 11, 2005  
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-  **Signal Transduction To The Actin Cytoskeleton During Chemotaxis**  
52 min - May 17, 2005 - ★★★★★ (1 rating)  
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-  **Clinical Proteomics: Cancer Biomarker Discovery**  
58 min - Mar 9, 2005 - ★★★★★ (3 ratings)  
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<http://video.google.com/videoplay?docid=-6686926126806817>  
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-  **Research Methods in Clinical Trials**  
42 min - Jun 21, 2006 - ★★★★★ (1 rating)  
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-  **Immune Control and Disease Development in Chagas Disease**  
1 hr 26 min - Mar 14, 2005 - ★★★★★ (3 ratings)  
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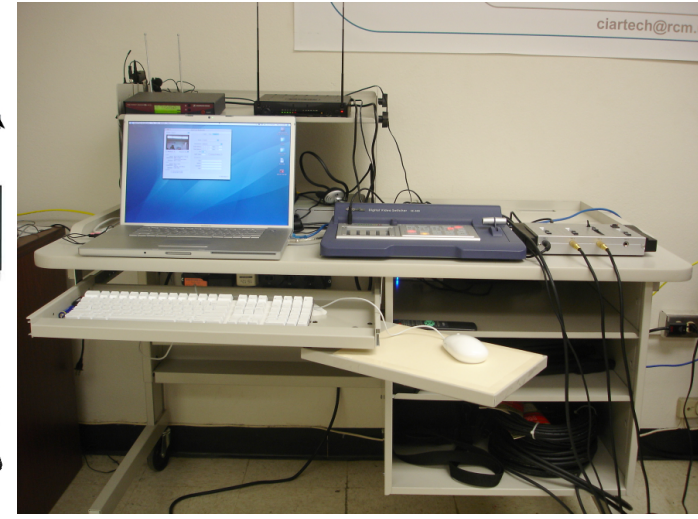
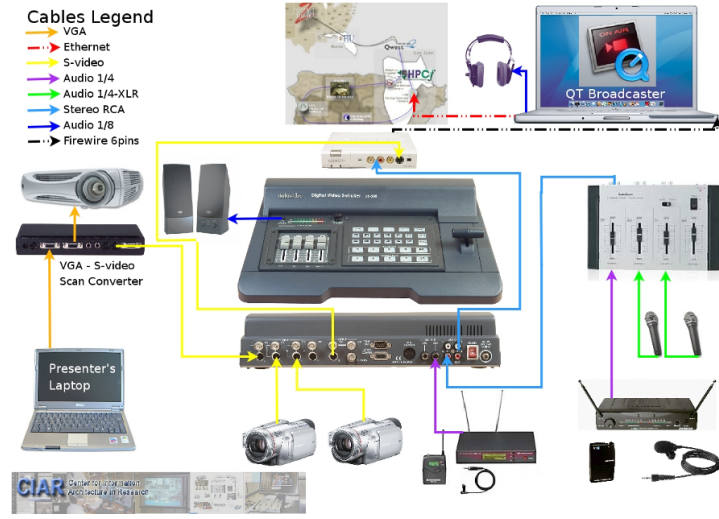
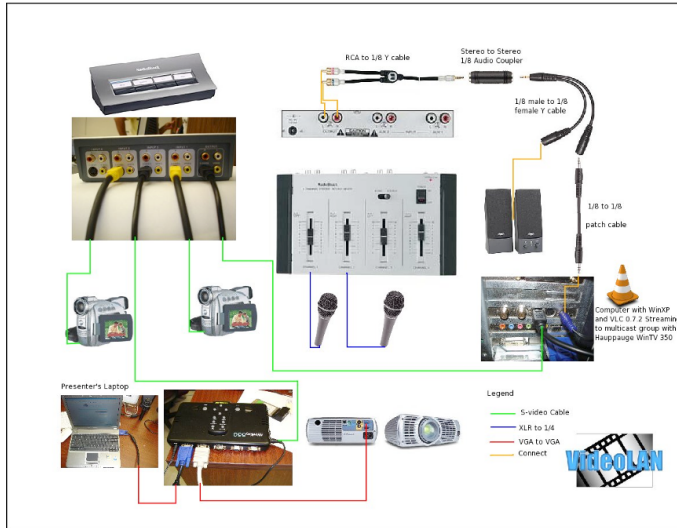
-  **Clausura Internado BREP 2007**  
50 min - Jul 23, 2007 - ★★★★★ (2 ratings)  
of Puerto Rico is to improve the knowledge of K-12 Puerto Rico research focusing on diseases and disorders that disproportionately affect Puerto Ricans.  
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-  **High-Throughput Genotyping in Human Genetic Studies**  
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-  **Physical and functional connections between RNA polymerase II and the basal transcription machinery**  
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-  **HIV-1-Associated Cognitive Impairment: Proteomics Research**  
1 hr 2 min - Oct 4, 2007  
can find more information about the RCMI Program at the University of Puerto Rico Medical Sciences Campus by visiting: <http://rcmi.rcm.upr.edu>  
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-  **Successful AIDS-Virus Specific Immune Responses**  
1 hr 1 min - May 16, 2005 - ★★★★★ (1 rating)  
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<http://video.google.com/videoplay?docid=5598388926758556200>  
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-  **Aging, Macular Disease, Metabolic Stress and Rod Cell Function**  
1 hr 2 min - May 13, 2005 - ★★★★★ (1 rating)  
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<http://video.google.com/videoplay?docid=-2188070916078372906>  
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-  **Maximizing Commercialization Strategies for University-based Technologies**  
55 min - Feb 23, 2006 - ★★★★★ (2 ratings)  
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-  **Changing Substrate Specificity by Remodeling Domain Interfaces in Enzymes**  
41 min - Aug 19, 2005  
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-  **MRI Funcional: Una Ventana al Cerebro en Accion**  
1 hr 8 min - Sep 13, 2005 - ★★★★★ (76 ratings)  
Universidad de Puerto Rico. Este seminario forma parte de la Serie de Seminarios RCMI en el Recinto de Ciencias Medicas de la Universidad de Puerto Rico.  
<http://video.google.com/videoplay?docid=2194487569631297827>  
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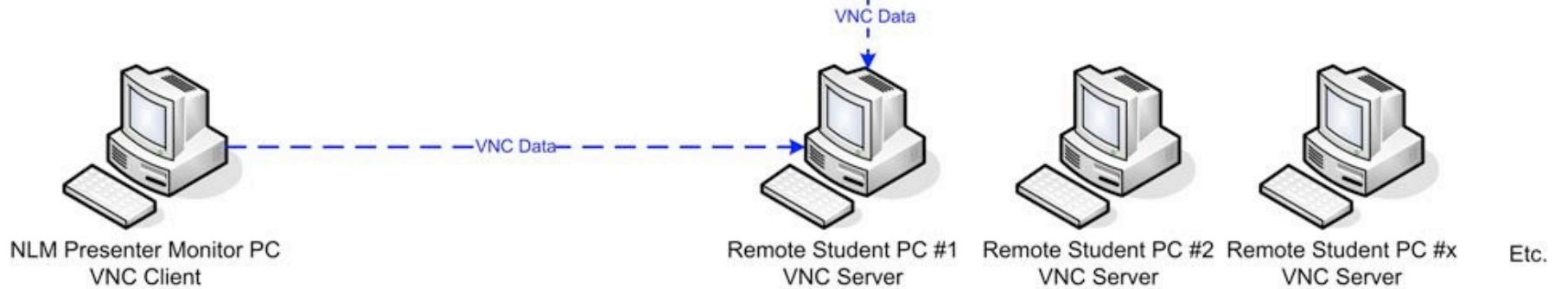
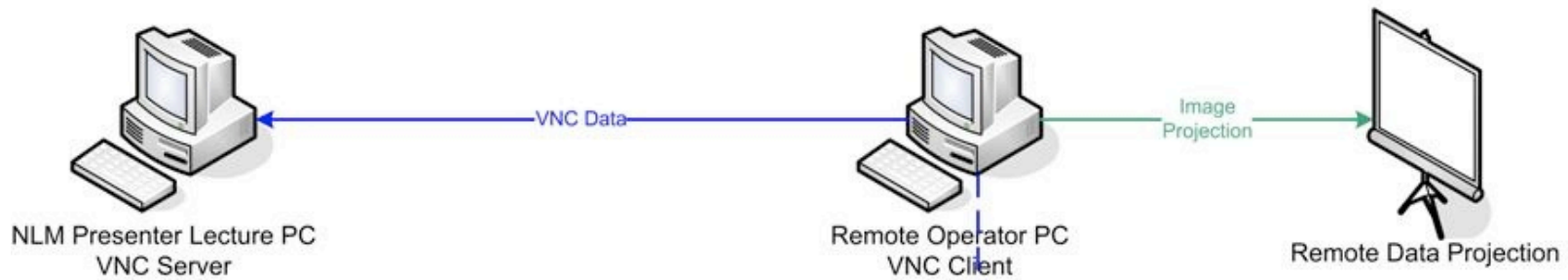
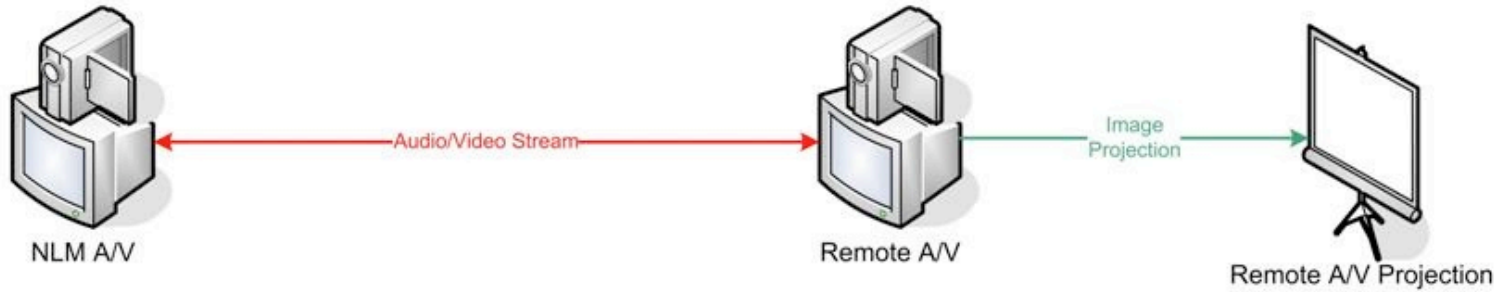
-  **Nueva Perspectivas en el Tratamiento del Asma**  
1 hr - Nov 22, 2005 - ★★★★★ (37 ratings)  
Universidad de Puerto Rico. Este seminario forma parte de la Serie de Seminarios RCMI en el Recinto de Ciencias Medicas de la Universidad de Puerto Rico.  
<http://video.google.com/videoplay?docid=-2089347684211569610>  
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-  **They could not accept a master- B.K. Ashford**  
1 hr 9 min - Apr 5, 2005  
Universidad de Puerto Rico. Este seminario es patrocinado por la Asociación Americana para el Avance de la Ciencia y forma parte de la Serie de Seminarios RCMI en el Recinto de Ciencias Medicas de la Universidad de Puerto Rico.  
<http://video.google.com/videoplay?docid=-2035377127038728599>  
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-  **Nuevos Desarrollos en Proteómica y sus Aplicaciones en Biotecnología**  
1 hr 1 min - Oct 3, 2007 - ★★★★★ (1 rating)  
más información sobre el Programa RCMI en el Recinto de Ciencias Médicas de la Universidad de Puerto Rico visite: <http://rcmi.rcm.upr.edu>  
<http://video.google.com/videoplay?docid=-7392625035621604572>  
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-  **Estudios Funcionales de Transportadores de Purina en Tripanosoma**  
1 hr 12 min - Nov 18, 2005 - ★★★★★ (2 ratings)  
Este seminario forma parte de la Serie de Seminarios RCMI en el Recinto de Ciencias Medicas de la Universidad de Puerto Rico. El video es una producción del Centro de Estudios Funcionales de Transportadores de Purina en Tripanosoma.  
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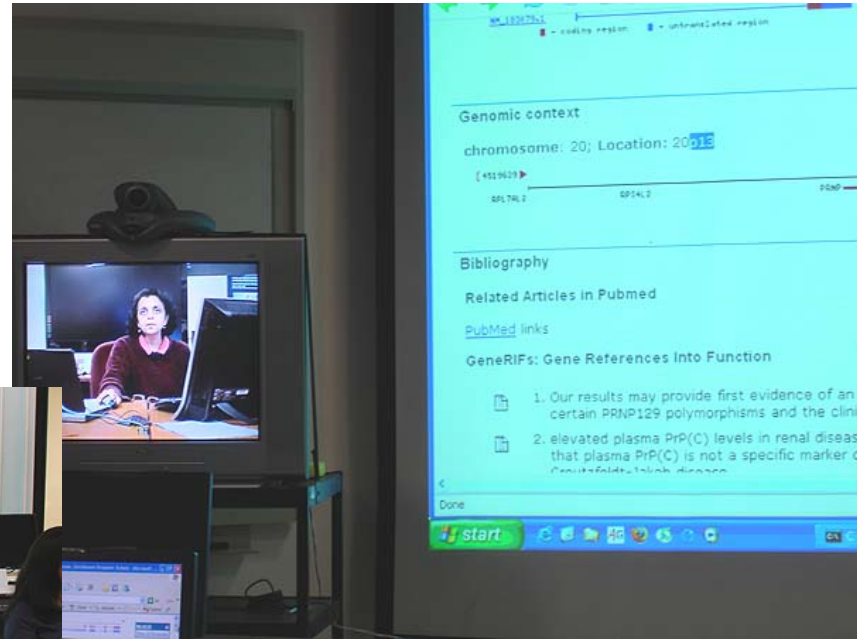
# “VideoCart”



# A Virtual Computer Lab for Distance Biomedical Technology Education

# AUDIO / VIDEO & DATA

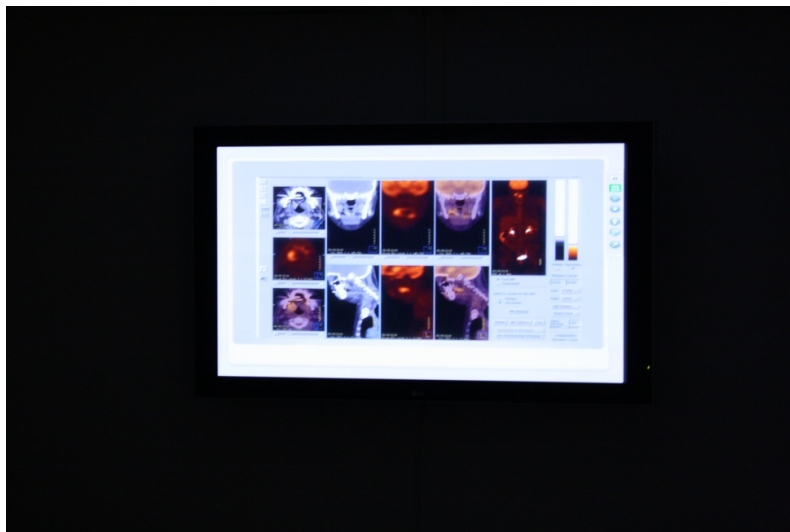




# “Distributed” Tumor Boards

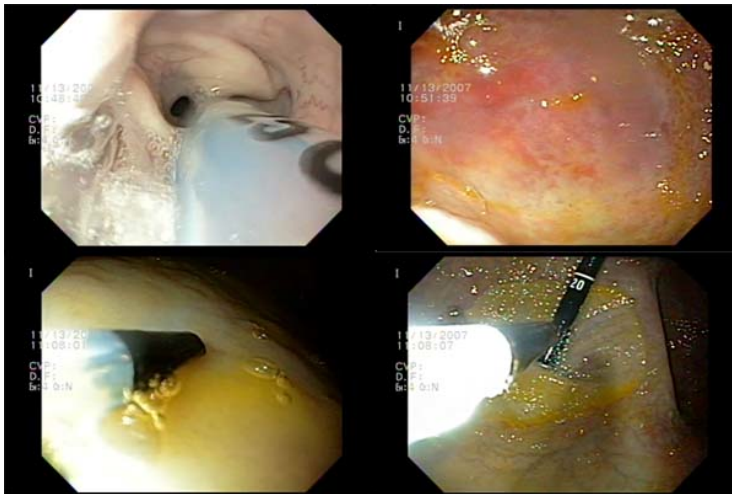


# “Distributed” Tumor Boards





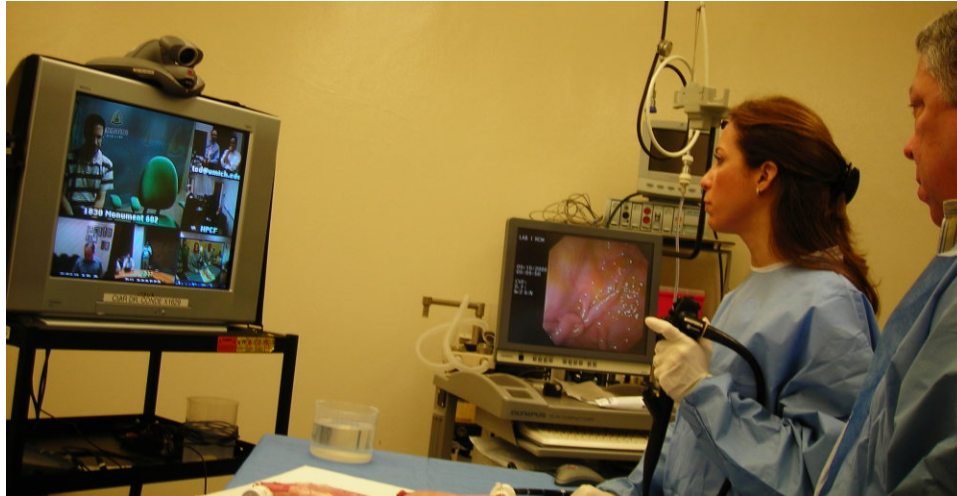
# Streaming of Endoscopic Videos Over Internet2 (November 13, 2007)



# Streaming of Endoscopic Videos to Viva la Vida Symposium (March 10-11, 2008)



# Test of Multisite Endoscopic Video Streaming (September 18, 2008)



# HD Endoscopy

Olympus Evis Exera II C-180



LifeSize Room 200



# Staff



# Acknowledgments



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*Puerto Rico Cancer Center*

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Department of Surgery  
UPR School of Medicine*



*University of Washington*

Computer Science & Engineering

Center for Collaborative Technologies at the University of Washington



*Division of Head and Neck Surgery  
Department of Surgery  
UPR School of Medicine*

# Acknowledgments



This project is supported by grant number **G12RR03051 (RCMI Program, University of Puerto Rico Medical Sciences Campus)** from the National Center for Research Resources (NCR), a component of the National Institutes of Health (NIH). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of NCR or NIH.



**Muchas Gracias**

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