Cardionetworks
Annual Report 2009
Because medical knowledge should be free
Cardionetworks in brief

- The Cardionetworks Foundation is a non-profit organization founded in 2007 and based in The Netherlands.
- Our goals are to improve medical knowledge, especially in the field of cardiology, and to provide access to this knowledge by facilitating publications in digital or other form, amongst other means by building and maintaining websites.
- As a not-for-profit organization, all revenues are spent in the pursuit of this cause.
- We manage around 30 specialized websites, providing high quality and up-to-date information freely to physicians all around the world.
- Our websites are all published under a creative commons license, and the information is accessible without login or registration.
- We subscribe to the HONcode principles of the Health On the Net Foundation.

Donations

- As a charitable enterprise, we rely entirely on the generosity of our supporters to allow us to continue in our work.
- To join our growing list of supporters please contact vanderbilt@cardionetworks.org to discuss the best way to contribute.
- Every donation is used to further promote free global access to vital medical information and resources. Thank you for your generosity.

Welcome to the third annual report of Cardionetworks. Since its inception in 2007, the goal of the Cardionetworks Foundation has been to provide free and open access to unbiased and up-to-date medical knowledge to the global medical community. The non-profit organization enjoys a significant international online presence from its base in The Netherlands.

The foundation publishes and maintains a series of websites offering physicians invaluable, reliable and up-to-date information on certain specialized subjects. Our websites are published under a creative commons license, allowing free, global access without login or registration.

We are delighted that the number of visitors to Cardionetworks websites continues to increase. Over 310,000 unique visits to our websites were logged in 2009; more than twice the number recorded during the previous year. In total more than 1.8 million pageviews were logged last year, and the average time each visitor spent on the website was more than 4.38 minutes.

Our global reach now extends to 178 countries, and we are particularly proud that increasing numbers of our visitors are located in developing countries, and we are particularly proud that increasing numbers of our visitors are located in developing countries. This suggests that we are achieving our goal of making high-quality medical information available to those with limited resources.

As well as increasing visitor numbers, 2009 has seen other important progress within certain specialized subjects. Our websites are all published under a creative commons license, and the information is accessible without login or registration.

Our future plans focus on continuing to increase the quality of our current websites. ECGpedia will be further developed. The quality of our current websites. ECGpedia will be expanded, while the sites PCGpedia and Echopedia will be further developed.

None of the achievements of this year, or during the lifetime of Cardionetworks, would have been possible without the tremendous efforts of the many volunteers who have helped in the process. As always, the foundation board is grateful for all the work and time that have been freely given to make this project such a success.

Wishing you health and every success in 2010

Jonas de Jong, MD
Ivo van der Bilt, MD
Martijn Meuwissen, MD, PhD
Cardionetworks foundation board
Visitor statistics

There is a continued increase in visitor numbers to both the English and Dutch versions of ECGpedia (en.ECGpedia.org and nl.ECGpedia.org).

The majority of visitors (59.8% and 75.3% for en.ECGpedia.org and nl.ECGpedia.org, respectively) located the site through a search engine. A variety of search terms were used to locate the site, including “qtc calculator”, “intraventricular conduction”, “idioventricular rhythm”, and “lbbb”, demonstrating the genuine need for this service.

A total of 75.7% of visitors were new to en.ECGpedia.org and 53.6.7% were new to nl.ECGpedia.org during 2009, suggesting that our marketing efforts during this year were successful.

These figures also indicate the presence of a substantial pre-existing user-base for both language versions.

The geographical distribution of visitors to en.ECGpedia.org is shown in the map. The majority of users continue to be based in English-speaking countries (60.8% of site visits were from the US, UK, Canada or Australia in 2009).

Visitors from countries such as India, the Philippines and Taiwan represent a significant proportion of our users.
Timeline of achievement

February 2006
Launch of ECGpedia.nl

July 2007
A total of 90,000 visits to the Dutch site and 4,500 to the English site recorded. Google has 673 search-hits on ECGpedia.

May 2007
Founding of the Cardionetworks Foundation

March 2008
Conclusion of a successful fundraising campaign. Premium donations received from Novartis, St. Jude Medical, Philips Medical and Boston Scientific.

April 2008
1,000,000th pageview recorded on ECGpedia

April 2005
First online Dutch ECG course available at www.drj.nl

March 2006
Launch of nl.ecgpedia.org

August 2007

May 2007
Translation of ECGpedia from Dutch into English initiated. Launch of en.ecgpedia.org

Nov 2007
120,000th visitor logs on to the Dutch ECG site.

August 2008
Martijn Meuwissen, MD, PhD, cardiologist, joins the board of the Cardionetworks Foundation

September 2007
Foundation awarded first prize for 'young talent' at a Dutch e-learning symposium.

Highlights of 2009
- Over 1.8 million pageviews from 178 countries logged, with average visit lasting more than 4.38 minutes
- De Voogt archive expanded to include 2350 ECGs
- More than 175 case studies with interesting ECGs generously provided by the Echolab of the Academic Medical Centre in Amsterdam
- Server upgraded once more to meet continuing and increasing demands.
Resources

Cardionetworks’ first project was ECGpedia.org, an online electrocardiography course. We have since created, and continue to maintain, around 30 individual websites, all dedicated to improving medical knowledge in the field of cardiology.

We subscribe to the HONcode principles of the Health On the Net Foundation. Much like Wikipedia, from where we take our name, anyone can contribute to the Cardionetworks websites through Mediawiki software. We welcome all improvements to our websites, and ask contributors only to post statements that are true and correct. All edits are screened by physician moderators.

ECGpedia

ECGpedia is a free electrocardiography (ECG) course and textbook designed for medical professionals such as cardiac care nurses and physicians. It is the primary website of the Cardionetworks Foundation. Since its foundation ECGpedia has become an important source of up-to-date information on ECG interpretation.

The website now includes more than 2000 example ECGs provided by contributors around the world. Recent additions include case reports by Dr. Alberto Giniger, chief of the Electrophysiology and Arrhythmias Department of the Instituto Cardiovascular de Buenos Aires (ICBA), Argentina.

This year, the English website has been entirely proofread to remove typographical errors. Current efforts are directed towards improvement of the readability of the websites, more interactivity with visitors (quizzes and polls) and the creation of a comprehensive online ECG basics course with exam. In addition, an Iphone App version of the website is being developed.

Echopedia

Echopedia is a free echocardiography textbook, designed for medical professionals such as cardiologists and echocardiography technicians. The site is still under development. Echopedia now contains more than 900 echocardiogram images from more than 170 cases provided by the AMC Echolab. An overview of all echocardiographic normal values is now presented on the website.

Currently, the biggest challenge for the website include attracting authors to improve the textual content. Even though content is far from complete, Echopedia has seen a strong increase in its number of visitors.

PCIpedia

PCIpedia is a free textbook on intervention cardiology, designed for medical professionals such as cardiologists and cathlab technicians. The site is still under development.

The first batch of coronary angiography cases in now online. Also, a start has been made to introduce visitors to angiographic coronary anatomy and technique. A pocket reference card has been developed and printed to give a quick review of coronary angiographic views.

BrugadaDrugs.org

The Brugada syndrome has been recognized as an important cause of sudden cardiac death in individuals at a relatively young age. Many drugs have been associated with adverse events in Brugada-syndrome patients. These drugs may either induce life-threatening ventricular arrhythmias and/or induce the characteristic Brugada syndrome-linked ECG abnormalities which are associated with poor outcome. BrugadaDrugs.org provides an overview on the available evidence and expert opinion regarding drug safety in Brugada syndrome. And is the result of a recently performed review of the literature. BrugadaDrugs.org ensures worldwide and up-to-date availability of this knowledge base to physicians and patients. This site was launched by Pieter Postema and is hosted by Cardionetworks.

Offline content

While the majority of our effort at Cardionetworks is focused towards delivering high-quality, freely-available medical information over the Internet, we also offer certain information and training offline.

- ECGpedia pocket cards are available and have been proved very popular. Approximately 3000 print copies have been requested to date.
- Live ECGpedia courses have proved very popular amongst the following groups:
  - Dutch medical students
  - Anesthetist residents
  - General practitioners
  - Junior doctors
  - Anesthesia and internal medicine residents
  - A PCIpedia pocket card has been published
  - An Echopedia pocket card is under development
Scientific Advisory Board

We are grateful for the continued involvement and support of our scientific advisory board, a group of outstanding cardiologists with impressive credentials and outstanding teaching skills. The members of the scientific advisory board serve as exemplary role models and an invaluable resource to those at an earlier stage in their career.

R.B.A. van den Brink, MD, PhD,
Cardiologist and Dean of Cardiology,
Academic Medical Centre,
Amsterdam, The Netherlands

M.J.M. Cramer, MD, PhD,
Associate Professor of Cardiology,
University Medical Centre Utrecht,
The Netherlands

Prof. A.A. Voors, MD, PhD,
Professor of Cardiology,
University Medical Centre Groningen,
The Netherlands

Prof. A.A.M. Wilde, MD, PhD,
Cardiologist and Head of the Department of Cardiology, Academic Medical Centre
Amsterdam, The Netherlands

Prof. H.J.J. Wellens, MD, PhD,
Emeritus Professor of Cardiology,
Cardiovascular Research Institute
Maastricht, The Netherlands

Foundation Board

Jonas de Jong, MD. Chair
Cardiology resident
Academic Medical Centre, University of Amsterdam
The Netherlands

Ivo van der Bilt, MD. Secretary
Cardiology resident
Academic Medical Centre, University of Amsterdam
The Netherlands

Martijn Meuwissen, MD, PhD. Treasurer
Cardiologist
Academic Medical Centre, University of Amsterdam
The Netherlands
These are our benefactors:

**Boston Scientific**

**MSD**

**Medtronic**

**St. Jude Medical**

**Novartis**

**PHILIPS** sense and simplicity

### Volunteers

**The Netherlands**
- Pieter Postema: Founder and creator of BrugadaDrugs.org
- Prof. Hein Wellens: World renowned arrhythmia expert has advised the board on improvement of the website.
- Prof. Arthur Wilde: Continues to provide arrhythmia cases to the website.

**Canada**
- Katherine Padilla: Administrator

**USA**
- Kathryn Goldin: Meticulously proofread the ECGpedia websites

**Argentina**
- Dr. Alberto Giniger: Chief of the Electrophysiology and Arrhythmias Department of the Instituto Cardiovascular de Buenos Aires (ICBA). Provided interesting arrhythmias cases.

**Philippines**
- Shayne Morales: Created illustrations and did a lot of the handwork, adding logos and courtesy notices to images and videos, basic layout improvement.

**Benefactors**

Make a donation
As a charitable enterprise, we rely entirely on the generosity of our supporters to allow us to continue in our work. To join our growing list of supporters please contact vanderbilt@cardionetworks.org to discuss the best way to contribute. Every cent you are able to give helps us further promote free global access to vital medical information and resources. Thank you for your generosity.
Financial report

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**Our mission:**
To improve medical knowledge, especially in the field of cardiology, and to provide access to this knowledge by facilitating publications in digital or other form, amongst other by building and maintaining websites.
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6#Marbles. Gingee, by entrelac; 7#Scotia’s eyes, by intrepid lady; 8#Lelea Letitie, by Mihai ela; 9#Little girl Matanchery Kochi, by Jules 1405; 10#Old Story, by Nascity; 11#Untitled, by Jeannette Leblanc; 12#Man from Malawi, by gunnisal; 13#Laughing Madhu, by Light and life mural; 14# girl with red flowers, by LindsayStark; 15#Age shows...by Prashant 16#ol, by TeLePoTo; 17#I feel so much pain and i’m 10, by edabella; 18#day 103 by multifaceted 19#Silence in eyes, by M R Hasan;
20#Geometry, by abhraich; 21#Jaipur0034mono, byRob Cooling 22#Blot Out My Darkness, by fatmanwalking 23#Regie-Bolinao nativo, by Glenn Mendoza 4#Untitled, by Mimosa veliu 25#Orphans, by Camera Rwanda
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