

You are in: [Sci/Tech](#)

Front Page Sunday, 14 January, 2001, 09:15 GMT

Virtual lab brings science to life



Pioneering physiology experiments are going online

By BBC News Online internet reporter Mark Ward

If you have ever wondered what life was like as a 19th Century biologist, now is your chance.

German scientists are creating a virtual laboratory on the internet to give people the opportunity to study the laboratory work of pioneering researchers.

The rich collection of materials digitised for the project will act as a centre for scholars studying the history of science. But surfers will also be able to try out some classic experiments for themselves.

The virtual laboratory is due to open later this year.

Physiology pioneers

Sven Dierig, the man behind the virtual laboratory project at the Max Planck Institute for the History of Science in Berlin, said the initial plan was to create a 3D model of Emil du Bois-Reymond's physiological institute that people could explore and learn about via the web.

The institute was established in Berlin in 1873 and its work helped to free biology of lingering vitalist ideas which assumed living organisms were powered by a "life force".

But this project was eventually deemed to be too costly. Now, instead of an entire institute, Dierig and his co-workers are planning to build an online laboratory that acts as an educational tool and an ongoing research resource.

Once the doors of the virtual laboratory open next year, people will be able to follow and recreate the work of 19th Century scientists such as Claude Bernard and Wilhelm Wundt.

Modern marvels

Bernard studied homeostasis in living organisms and Wundt is widely seen as the father of experimental psychology.

The virtual lab will detail what these pioneers did, describing the lab equipment used and organisms experimented on.

The project aims to digitise as much information as possible. Visitors will be able to read previously unseen material such as the lab notebooks. This will give people an idea of how experiments were done without the technological marvels modern-day scientists use in their research.

"We want to establish a virtual research site for historical work on those forms of knowledge prefiguring what today's public knows as biotechnology and molecular biology," Dierig told BBC News Online.

Twitching legs

Also on the site will be software copies of classic experiments that visitors can try out for themselves. One of the more famous experiments by du Bois-Reymond established how nerves work by using electrical stimulation to make the legs of a frog twitch.

The site will also be used by academics studying the history of science and it will be updated to reflect the latest scholarship.

The virtual lab will try to emulate the success of similar sites such as the Galileo Project and the Perseus Digital Library. Perseus is an evolving hyperlibrary of history sources about everything from classical civilisations to the pioneers who first settled in California.

The scientific work needed to establish the lab is being paid for by the Volkswagen Foundation. Dierig and his colleagues are still looking for funds to establish and run the website.

Links to more Sci/Tech stories

In This Section

Search BBC News Online

GO

[Advanced search options](#)[Launch console for latest audio/video](#)

- [BBC RADIO NEWS](#)
- [BBC ONE TV NEWS](#)
- [WORLD NEWS SUMMARY](#)
- [BBC NEWS 24 BULLETIN](#)
- [PROGRAMMES GUIDE](#)

See also:

- ▶ [03 Jan 01 | Sci/Tech](#)
Hackers kill off heroes
- ▶ [23 Mar 00 | Middle East](#)
Palestinians secure cyber state
- ▶ [18 May 00 | Sci/Tech](#)
Tarantula 'may save lives'
- ▶ [21 Sep 00 | Sports Talk](#)
Technology gone mad?
- ▶ [23 Mar 00 | Sci/Tech](#)
Small fly makes history
- ▶ [08 Mar 00 | Wales](#)
Science can be so unpredictable
- ▶ [19 Oct 99 | Sci/Tech](#)
Renaissance machines are reborn

Internet links:

- ▶ [Virtual laboratory for physiology](#)
- ▶ [Max Planck Institute for the History of Science](#)
- ▶ [Perseus digital library](#)
- ▶ [The Galileo project](#)

The BBC is not responsible for the content of external internet sites

Top Sci/Tech stories now:

- ▶ [BSE 'cross-infection' risk](#)
- ▶ [No women on Mars trip](#)
- ▶ [Big four dominate web](#)
- ▶ [PlayStation branches out](#)
- ▶ [State of the Earth study launched](#)
- ▶ [World's largest flower opens](#)
- ▶ [Spiral galaxy stays young at heart](#)
- ▶ [Thinking 'drains the brain'](#)

Links to more Sci/Tech stories are at the foot of the page.