

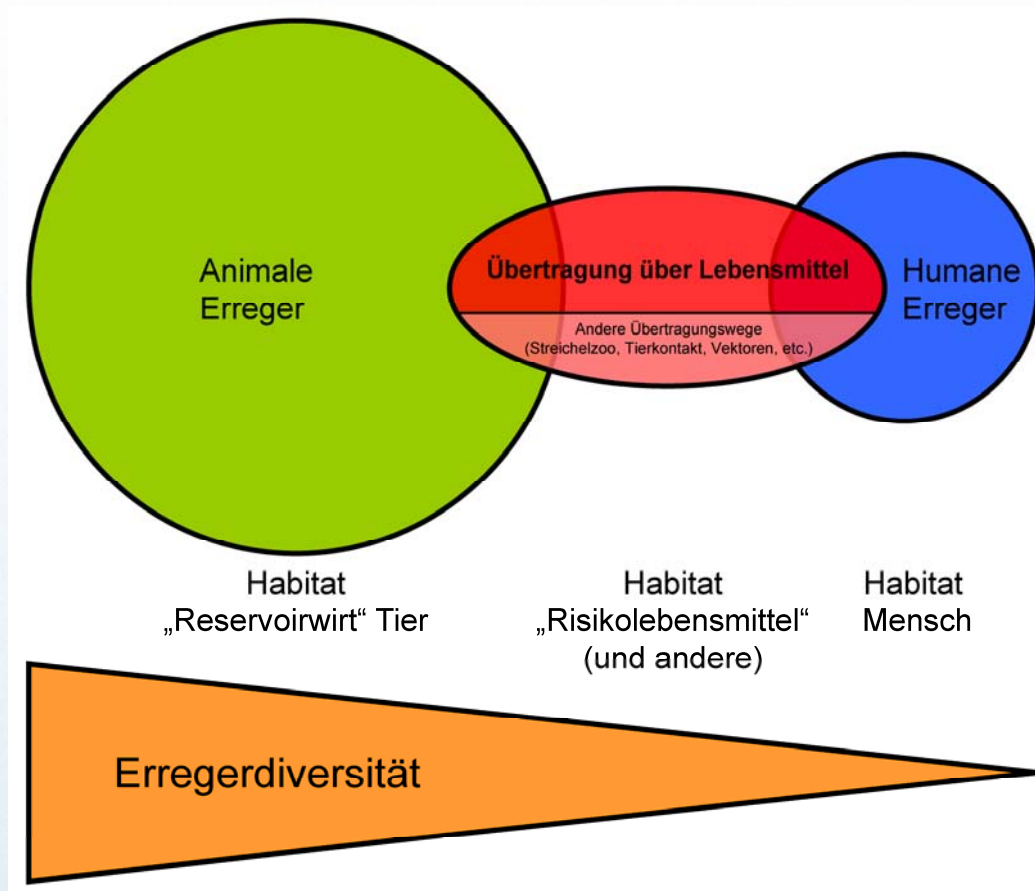


Food-Borne Zoonotic Infections of Humans

FBI-Zoo

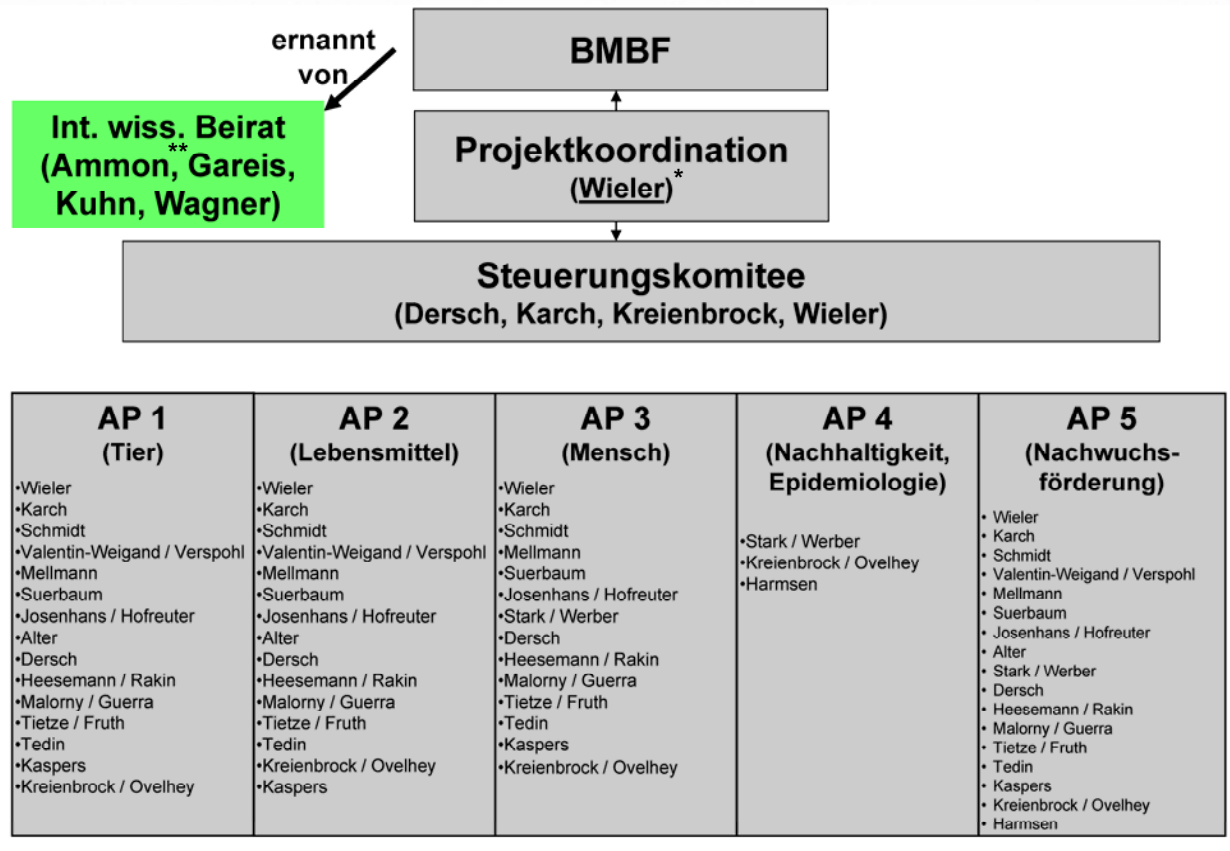
Interdisziplinäres Forschungsnetzwerk:
Lebensmittel-übertragene zoonotische Infektionen beim Menschen

FBI-Zoo Objectives: from farm to fork – one health



fbi-zoo.net

FBI-Zoo Management Structure

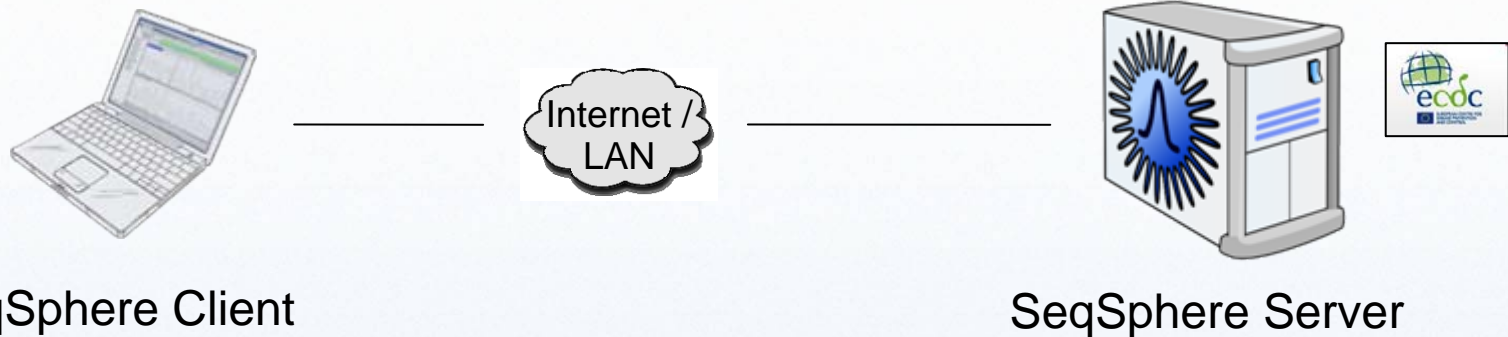


*Institute of Microbiology and Epizootics, Veterinary Faculty, Freie University Berlin;

** Vice director European Center for Disease Prevention and Control, Stockholm, Sweden.

Sustainability of Data

SeqSphere Client/Server Architecture



- **SeqSphere Client:** rich Java Client (desktop application; multiple users & computers) for powerful molecular typing data analysis and to diminish load of the Server 🌐 🍏 🐧
- **SeqSphere Server:** based on http server and Java Servlet Engine, web interface in development (Apache/Tomcat/Spring)
- **Logic Tier (middleware)** between SeqSphere Server and database, to support most SQL databases available on the market.

FBI-Zoo Data Types

Epidemiology

Typing

Level

I Basic

Basic epidemiologic data
(Sample data sheet)

Basic typing data

II Specific

Specific epidemiologic data

S1 S2 S3 S4 S5 S6

S7 S8 S9 S10 S11 S12

Specific typing data

E C Y S

(MLST, SLST, MLVA,
SNP [?], Micro-array [?])

View & export

Edit

I All FBI-Zoo IPs

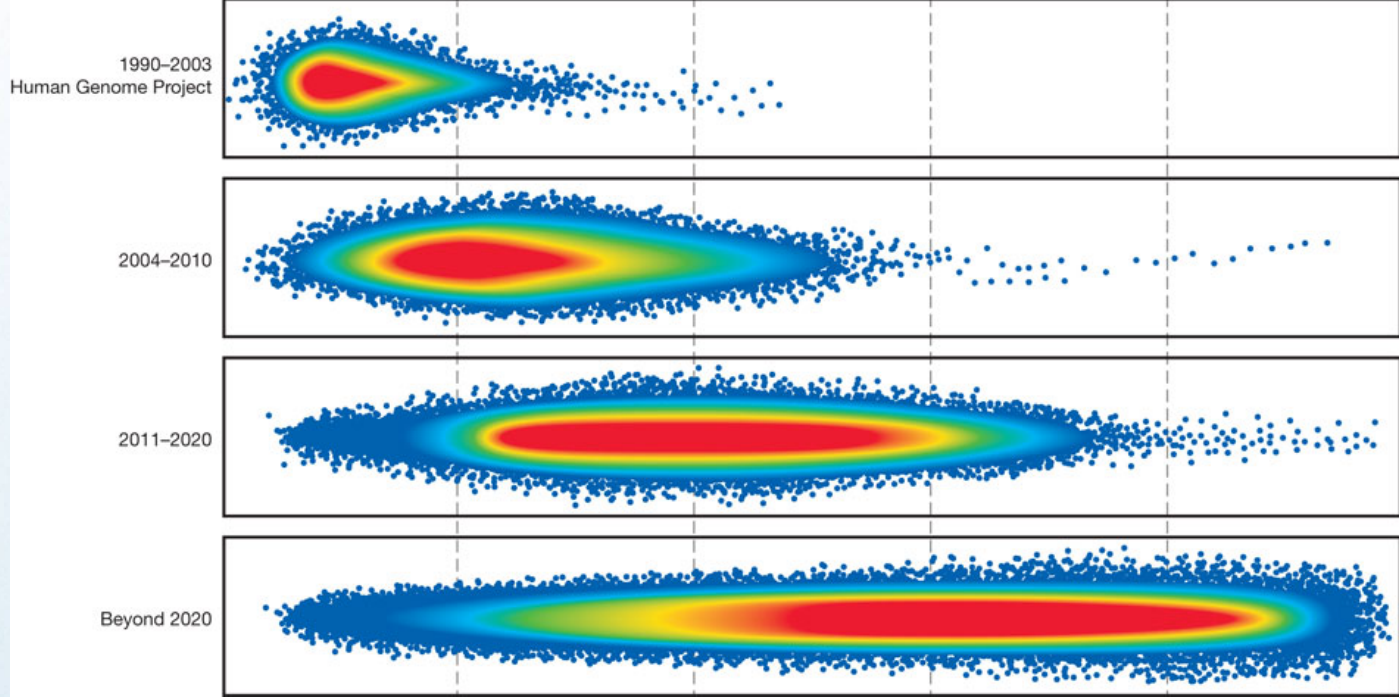
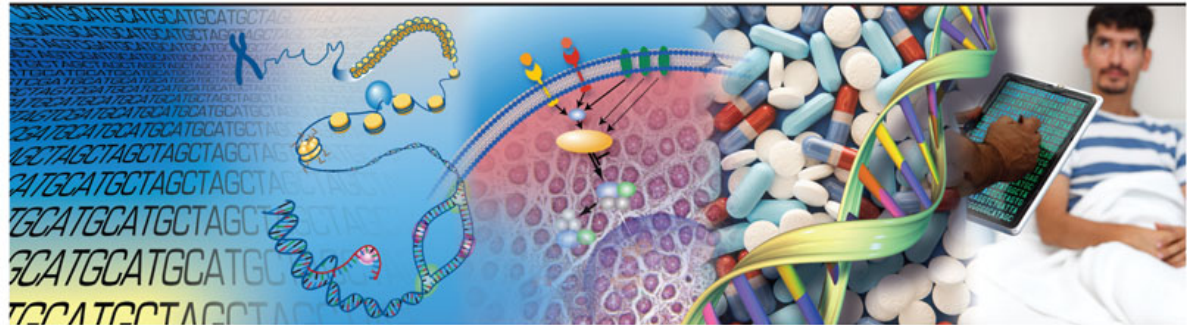
Sample owner primary group /
Species reference center primary group

II Associated IP(s) of
specific IP(s)

Specific IP(s)

Personalized Genomic Medicine: from Base Pairs to Bedside

Understanding the structure of genomes Understanding the biology of genomes Understanding the biology of disease Advancing the science of medicine Improving the effectiveness of healthcare



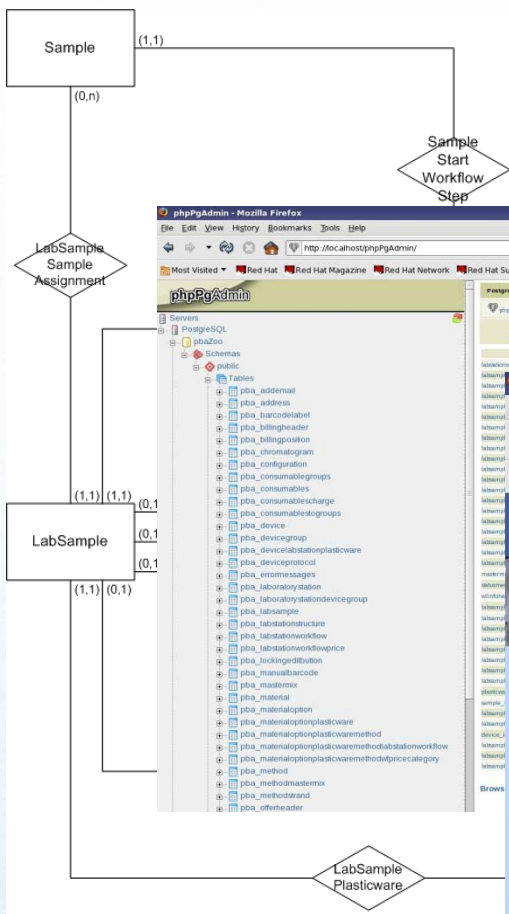
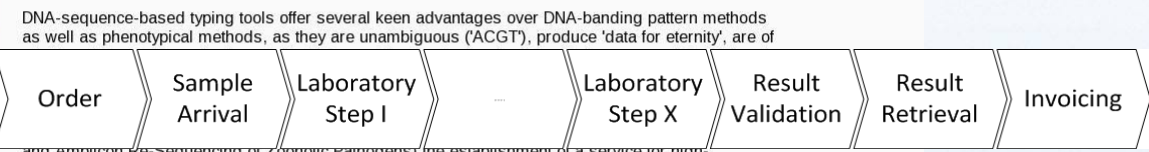
ED Green et al. *Nature* **470**, 204-213 (2011) doi:10.1038/nature09764

nature

PBA-Zoo: National Microbial Amplicon Re-sequencing-Center



01KI0801 (PBA-Zoo)

and Amplicon Re-Sequencing of Zoonotic Pathogens) the establishment of a service for high-throughput DNA sequence generation (multi-capillary machine and specimen handling robot) of amplicons and data analysis that is offered to all BMBF zoonosis networks (BMBF Amplicon Re-Sequencing Center at the University Hospital Münster).

Funded by

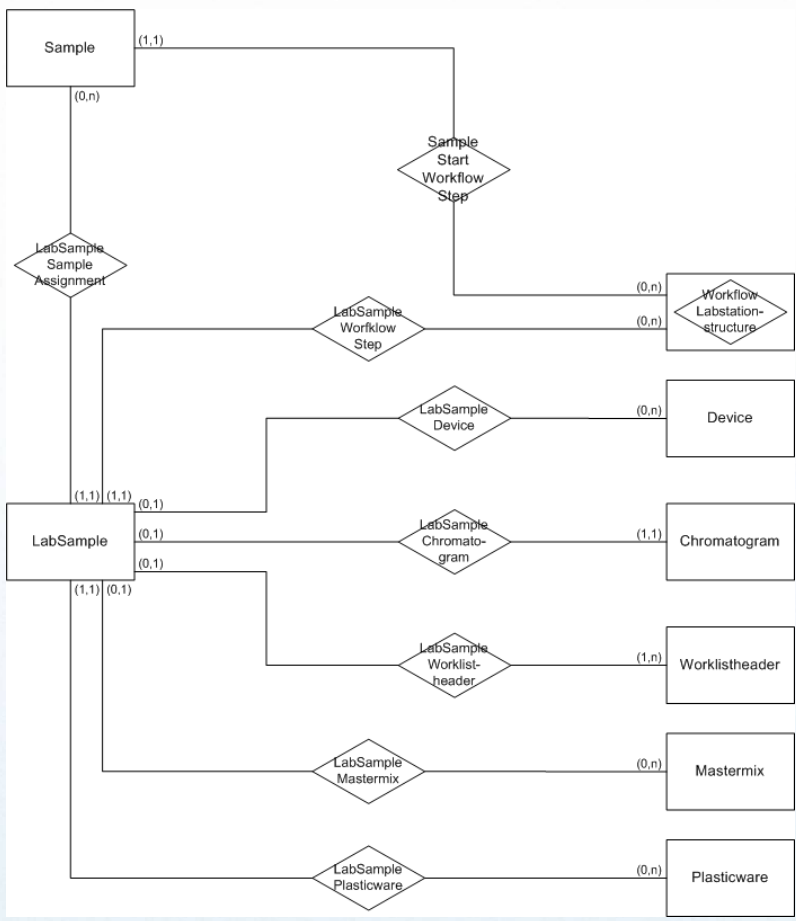
 Federal Ministry of Education and Research



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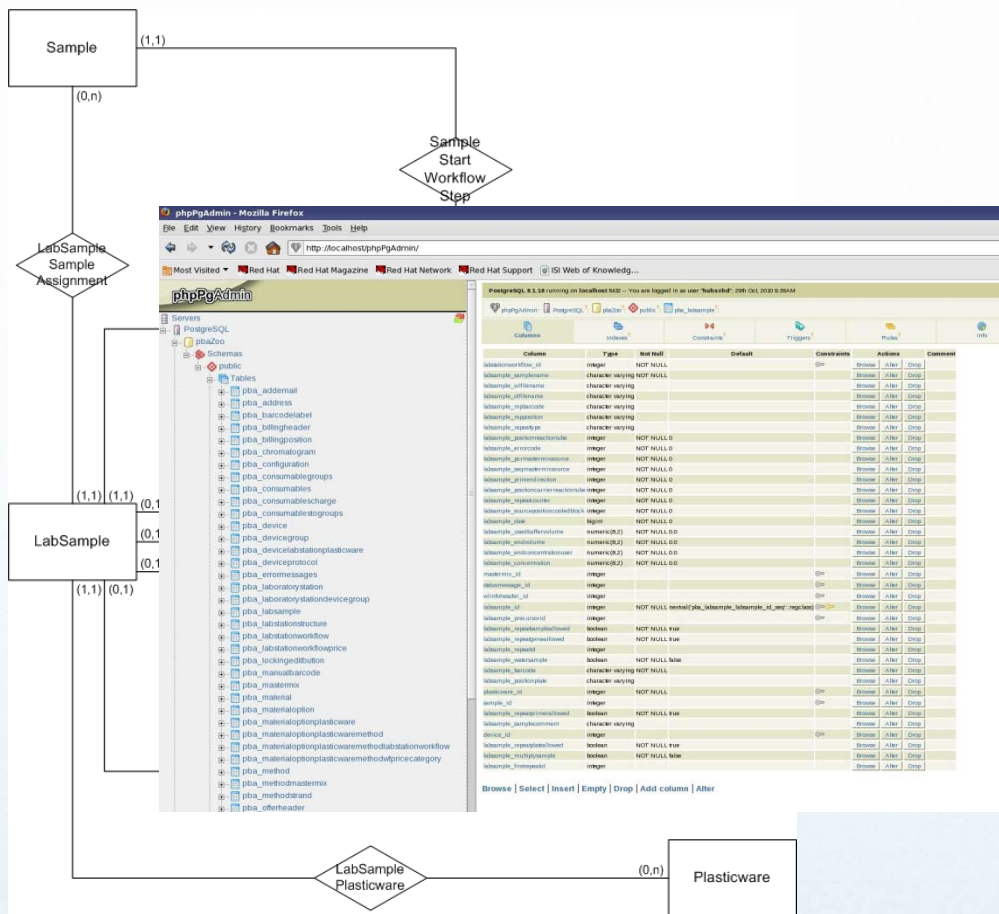
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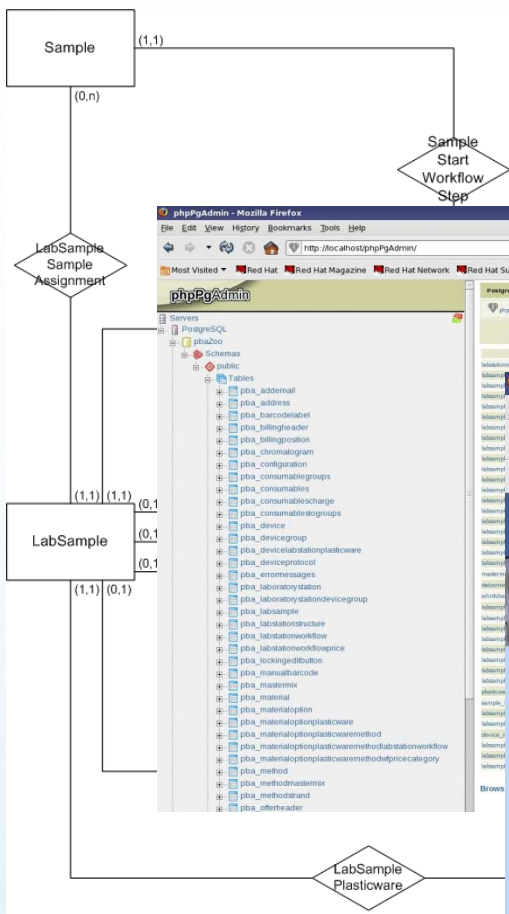
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PBA-Zoo: National Microbial Amplicon Re-sequencing-Center



01KI0801 (PBA-Zoo)



Welcome to the BMBF funded PBA-Zoo Re-Sequencing Center

DNA-sequence-based typing tools offer several keen advantages over DNA-banding pattern methods as well as phenotypical methods, as they are unambiguous ('ACGT'), produce 'data for eternity', are of additive character, are simply portable between laboratories, and can easily be accessed through web-linked applications, thus offering the possibility to be globally available. In addition, due to their unambiguous character, an international nomenclature can be applied.

Therefore, the BMBF funds as part of the cross-sectional activity PBA-Zoo (Phylogeny, Bioinformatics and Amplicon Re-Sequencing of Zoonotic Pathogens) the establishment of a service for high-throughput DNA sequence generation (multi-capillary machine and specimen handling robot) of amplicons and data analysis that is offered to all BMBF zoonosis networks (BMBF Amplicon Re-Sequencing Center at the University Hospital Münster).

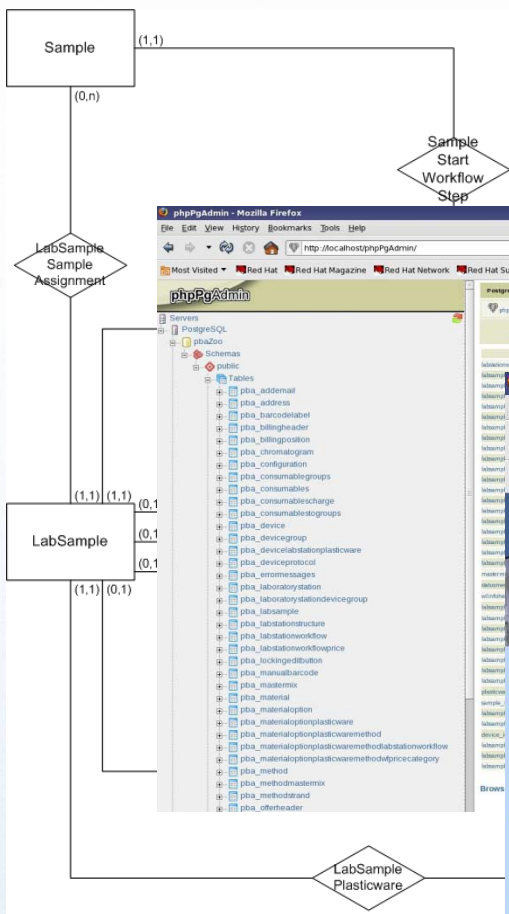
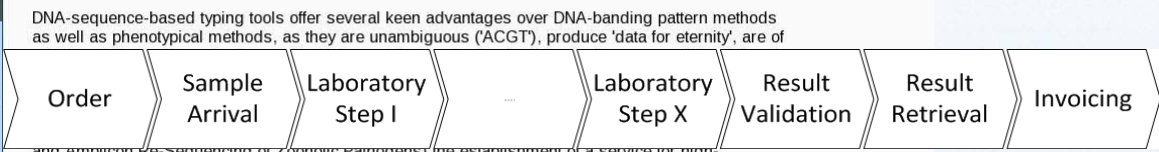
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TMF Supportive Infrastructure

- AG 'Zoonosis and Infectious Disease Research'
- Yearly 'Symposium for National Zoonosis Research'
- Organization of a multitude of zoonosis workshops and seminars
- Seed funding for a multitude of zoonosis research projects (e.g., PBA-Zoo)



Food-Borne Zoonotic Infections of Humans

FBI-Zoo

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