

# **Viral Hepatitis Prevention Board Meeting**

**Antwerp, 12-13 March 2009**

**Hepatitis A and E: Update on prevention and epidemiology**

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## **Hepatitis E Virus Infection in Germany**

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**Wolfgang Jilg**

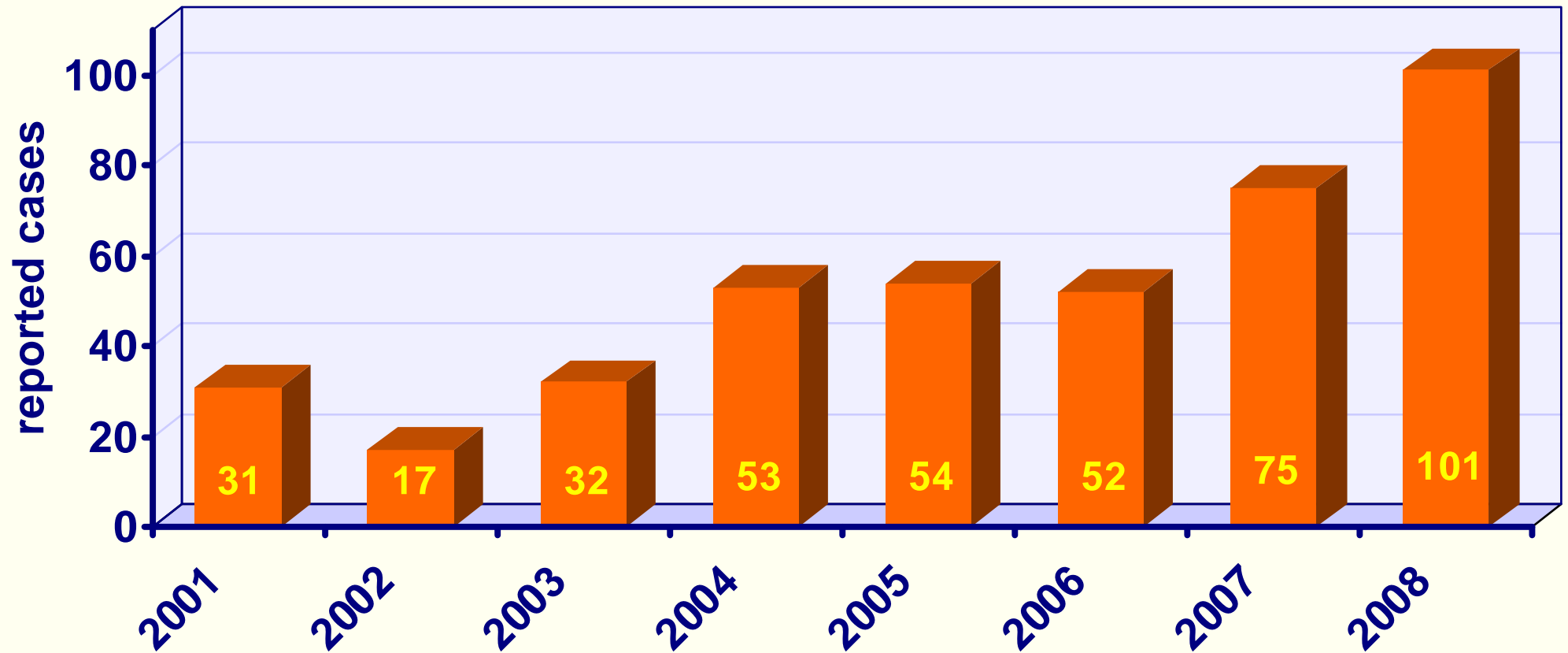
**Institut für Medizinische Mikrobiologie und Hygiene**

**Universität Regensburg**

# Incidence of Hepatitis E in Germany

## reported cases 2001-2008

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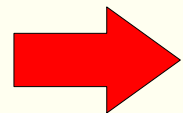
year	cases reported	% of cases without travel history
2001	31	n.d.
2002	17	44
2003	32	33
2004	53	40
2005	54	44
2006	52	44
2007	75	61
2008	101	n.d.

# **Autochthonous Hepatitis E in Germany 2004: first proven case of autochthonous infection**

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## **50-year-old man admitted with severe hepatitis**

**Findings:** ALT 1455 U/l, AP 308 U/l, bilirubin (tot) 283 µmol/l  
**History:** no alcohol abuse, no hepatotoxic subst. ingested  
no stay abroad during last 6 months  
**Lab. Diagn.:** hep. A-,B-,C-, EBV-, CMV-, Adeno-, Entero-viruses  
excluded, no autoimmune antibodies  
**Liver histol.:** acute hepatitis resembling viral hepatitis



**anti-HEV IgM +IgG pos., HEV-PCR in serum pos.  
sequence analysis: genotype 3, high homology  
to swine isolate from Netherlands**

# **Autochthonous Hepatitis E in Germany 2004: a case of chronic autochthonous infection**

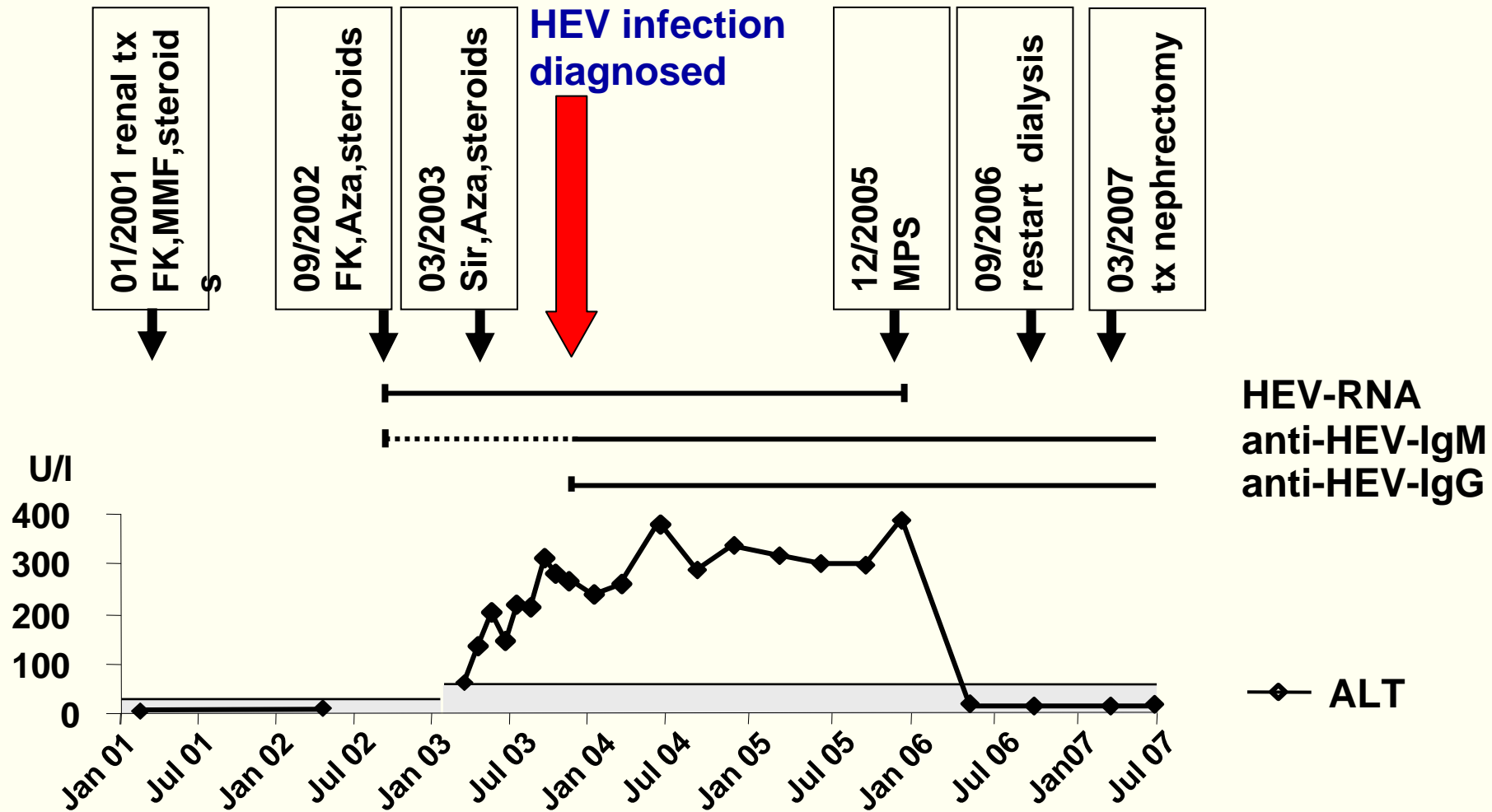
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**A renal transplant patient with progressive rise in transaminases**

- ➔ histologically proven chronic hepatitis**
- ➔ no hepatitis A, B, C, no autoimmune antibodies**
- ➔ active infection with HEV: anti-HEV IgM and IgG pos., HEV-RNA pos., HEV of genotype 3**
- ➔ analysis of stored sera showed start of infection more than one year before**

# Autochthonous Hepatitis E in Germany

## 2004: a case of chronic autochthonous infection



# Risk factors for Hepatitis E in Germany

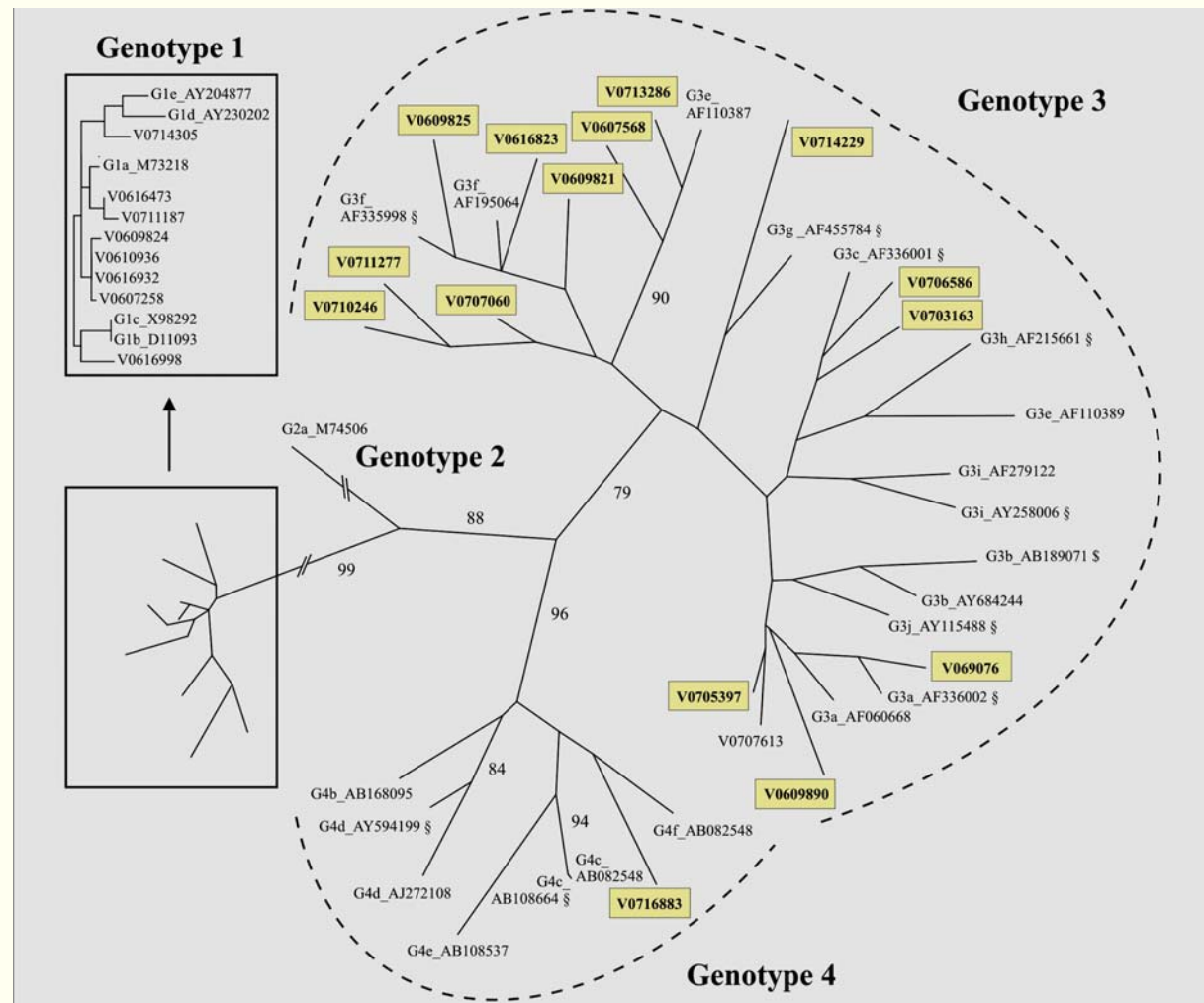
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**66 patients with hepatitis E  
(2006-2007)**



# Risk factors for Hepatitis E in Germany

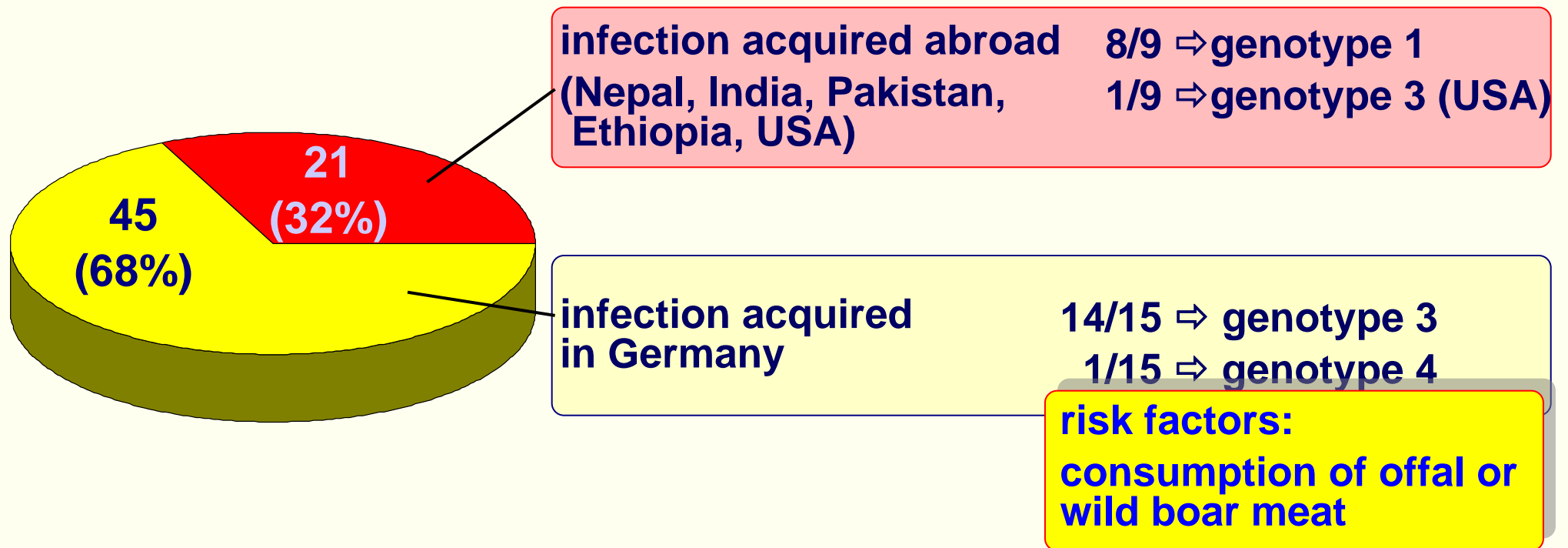
## phylogenetic analysis of autochthonous cases





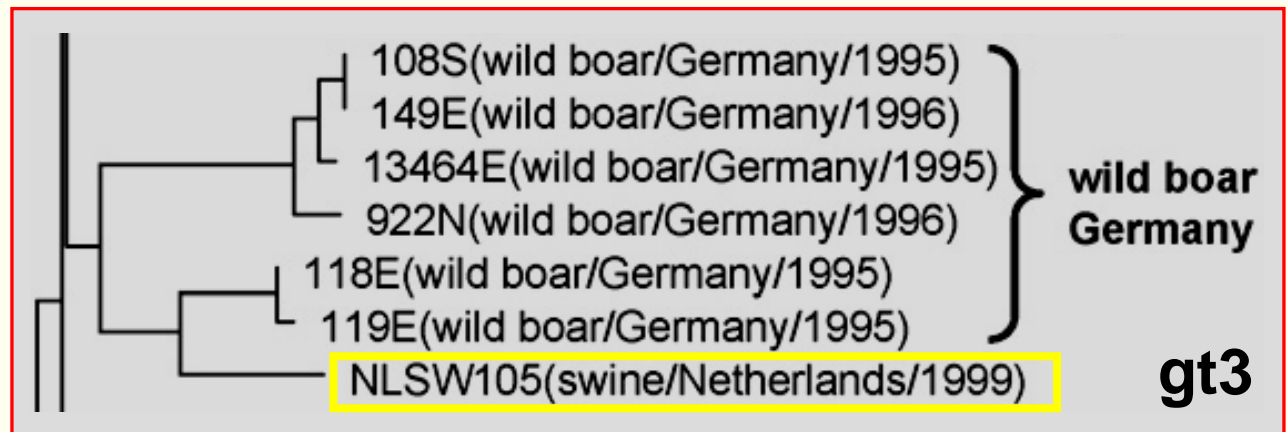
# Risk factors for Hepatitis E in Germany

66 patients with hepatitis E  
(2006-2007)



# HEV in wild boars in Germany

- sera of 189 wild boars collected in 1995/96 in Mecklenburg-Vorpommern analysed for HEV-RNA
- 10/189 (5.3%) positive
- all isolates belonged to genotype 3 clustering within one branch together with pig isolate from the Netherlands



# Hepatitis E in Germany

- present state of knowledge -

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- 50 - 100 acute cases /year
- > 50% autochthonous infections
- anti-HEV-prevalence > 10% (?)
- about 100.000 infections/year (?)

# Hepatitis E in Germany

- nationwide prevalence study -

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- **Anti-HEV will be tested in sera of participants of the German Health Interview and Examination Survey for Adults (DEGS) conducted by the Robert-Koch-Institute**
- **aim of the DEGS is to collect representative data on the health status, health-related behaviour, healthcare and living conditions of adults resident in Germany**
- **about 9.000 participants will be enrolled**
- **carried out from Nov. 2008 till Nov. 2011 in a total of 180 cities and municipalities all over Germany**

# Acknowledgments

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