Calculation of biobank total cost and setting up of a fee for service scheme

(J. Geiger, Würzburg)
ibdw structure

- centralized biobank of the medical faculty
  - shared core facility of University and University Hospital
  - „broad consent“ collection
  - service provider for clinical and epidemiological studies

- funding
  - initial funding: national biobank initiative (until 4/2016)
  - IZKF (internal funding body)
  - Medical Faculty/University/University Hospital
  - performance-related resource allocation

⇒ planning for long-term financing
biobank business planning

- biobanks are different from common enterprises
  - assessment of sample value is virtually impossible
    - no hard criteria for sample value
    - storage is costly but does not add value
    - value is volatile
    - only the customer perceived value applies
  - assessment of costs is difficult to establish
    - complex organizational structure
    - unclear responsibility for costs
    - implicit costs cannot be broken down

value is in the eye of the customer
cost finding

- total cost
  - comprehensive analysis of overhead costs
    - personnel, maintenance, administration, consumption
  - long-term development (>10 years)
    - cost trend
    - personnel development
  - imputed costs
    - depreciation
    - replacement, upgrade
Cost finding

- Activity based cost calculation
  - Estimation of
    - Sample turnover
    - Rate of utilization
  - Direct expenditure on services/samples/data
  - Apportionment of indirect costs
    - Related to utilization of resources
assessment of process capacity

- time measurement of process steps
  - capacity limits of process steps
  - capacity utilization

- sample supply/demand
  - expectable number of donors/samples
  - number of clinical laboratory samples during working hours

- modeling of sample turnover
  - adaptable model simulating different scenarios

⇒ overall performance
cost allocation

- allocation of costs to process steps, cost segments and business units
  - according to utilization of resources
- 100% cost recovery based on
  - average utilization: 50% of maximum capacity
  - average sample turnover: 3 years
### fee for service – processing/storage

<table>
<thead>
<tr>
<th>project type</th>
<th>ibdw “broad consent”</th>
<th>prospective projects</th>
<th>funded project (local PI)</th>
<th>funded project (external PI)</th>
<th>industry collaboration project</th>
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<td>project type</td>
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<td>limited access (project specific)</td>
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<td>≥100% (negotiation)</td>
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Summary

- Activity based calculation is a suitable approach
- Calculation of compensation
  - Based on total costs according to utilization of resources
- Compensation
  - Cost contribution
    - Depending on the services provided, type of project
    - 100% cost coverage for funded research projects
  - External projects subject to VAT
- Successfully implemented in 2016
Thank you for your kind attention