



Science For A Better Life

How to Get the Business Started?

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Agenda

- How to start?
- Scope of the "audits"
- Outline of the process
- Preparation
- Conduct
- Evaluation
- Conclusion



How to start?

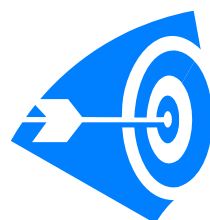
Collect Information

- Search the internet / literature
- Use your professional network
- Meet relevant people
- Prepare and discuss your strategy with experienced people
- Be aware of the timeframe





Scope



- In depth evaluation of the bioanalytical facilities
- Evaluation of the Phase I units
- Evaluation of the animal facilities
- Evaluation of the cooperation between CRO and CFDA
- Evaluation of internal alignment possibilities
 - Departments at Bayer with outsourcing activities in China
 - "One face to the customer"



Outline of the process

- Preparation
 - CROs were asked to complete a survey
- Evaluation based on a general procedure
 - Bioanalytical Laboratories, Clinical Phase I, Non-clinical PK and Toxicology Units
- Requirements for the evaluation
 - Application of a standardized procedure
 - Enable an unbiased evaluation
 - Collect as much information as possible within the given time frame
- Classification the CROs according to their business orientation



Main Topics in Survey

- Company Core Data
- Personnel
- Qualifications
- Documentation systems
- Experiences with Small Molecules
- Experiences with Biologics
- Sample management
- Communication





Evaluation Criteria

- Facilities
- Experiences
- Quality
- Quality systems – site
- Quality systems – equipment
- SOPs
- Procedures
- Overall impression of the laboratory
- Importance of CRO for Bayer
- Importance of Bayer for the CRO





Evaluation Measures

- Availability
- Score 1- 4
 - Reasonable
 - Acceptable
 - Good
 - Excellent
- Clustering of CROs based on their business orientation (colour code)
 - Commercial CROs
 - Academic CROs
 - Commercial CROs with Academic Phase I Units



Clinical Phase I Units

- Interviews with site staff on patient pool, past experiences and standard procedures in practices
- Facilities, including the wards, alarm systems, back-up power, emergency care medications and systems
- Phase I units were evaluated and scored from the following aspects:
 - Experience
 - Number of completed trials (may be adjusted based on trial complexity)
 - Clinical trial population
 - Principal Investigators/Clinicians/Site staff
 - Quality and process management





Facilities

- Bioanalysis
- Non-clinical Pharmacokinetics
- Toxicology
- Phase I unit
- Clinical laboratory
- Central laboratory
- Clinical operations
- Long-term storage facilities
- CMC



Evaluation based on availability



Experience

- **Global** clinical studies:

Most experienced in group - based on information received internally and at the CROs

- Number of conducted studies
- Preparation of submission to FDA or EMA
- Experienced in clinical operations
- Phase I part in global Phase III clinical studies



- **Local** clinical studies:

Experience - based on information received internally and the CRO (Phase I studies)

- Number of conducted studies
- Preparation of local submission to CFDA
- Experienced in clinical operations

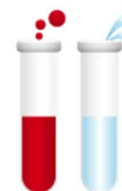




Experience

- Bioanalysis: Experience - judged on visit

- Method development and validation
- Study sample analysis



- Animal studies: Experience - judged on visit

- Animal facilities and procedures
- Quality of surgery room



Experience	Yellow			Orange				Light Blue		
Score	3 - 4			3 - 4				2 - 3		
Global Studies			x		x					
Local Studies					x			x	x	x
Bioanalytics	x	x	x	x		x		x	x	x
Animal Studies		x	x							



Quality System – Systems and Equipment

- Maintenance of refrigerators, freezers and alarm systems
- Backup power supply for the facility
- Backup storage of e-Data
- Alarm system of the archive and its maintenance
- Safety instruction for personnel
- Training procedures of personnel
- Computer system validation procedures (brief check)
- Documentation of IQ, OQ, PQ and instrument maintenance incl. small laboratory equipment
- Documentation of calibration and maintenance of pipettes and balances

Score: almost all 3-4



SOPs

Score 4: **Bilingual high quality SOPs**

- Statement on priority language in terms of conflicts is available
- All relevant topics for BA, sample and quality management are covered

Score 3E: **High quality SOPs written in English**

- All relevant topics for BA, sample and quality management covered

Score 3C: **High quality SOPs written in Chinese**

- All relevant topics for BA, sample and quality management covered

Score 2: **SOPs** written in English

- All relevant topics for BA, sample and quality management listed

Score 4 only for an academic CRO



Procedures

- Quality of procedures and documentation in the bioanalytical lab
 - Sample receipt, storage, transfer and disposal
 - Sample preparation
 - Sample analysis
 - Report template for method validation and study sample analysis
- QA performance
 - Audit schedule
 - Lifecycle of SOPs
 - Documentation of training
 - Archive (restriction of access, paper archive, e-Archive)

Score: almost all 3 - 4



Overall Impression of the Laboratory

- Overall impression of the laboratory (gut feeling)



- Communication with scientific and technical personnel
- Impression on flexibility and cooperativeness



Importance of CRO for Bayer

- Score 4: CRO can be seen as future partner for global and local clinical including bioanalytics.
Cooperation with other Bayer group's are already established
 - Score 3: CRO can be seen as future partner for global and local clinical studies including bioanalytics
 - Score 2: CRO can be seen as future partner for global or local clinical studies including bioanalytics.
 - Score 1: CRO can be seen as future partner for local clinical studies including bioanalytics
- ++ CRO provides non-clinical PK and toxicology studies
- + CRO provides clinical operations



Importance of Bayer as a client for the CRO



- Score 4: Preferred cooperation partner for global and local clinical and non-clinical PK, toxicological and bioanalytical studies
- Score 3: Preferred cooperation partner for global and local clinical and bioanalytical studies
- Score 2: Preferred cooperation partner for global or local clinical and bioanalytical studies
- Score 1: Minor cooperation partner, Bayer is one small client amongst many other important clients



List of Documents received / reviewed

- Completed survey
- Organizational charts
- Floor plan
- Company profile
- Index of BA SOPs
- Copies of Certificates
- Study protocol and report template(s)
- Work sheets
- Training documentation
- Disaster plan
- Computer Systems Validation Documentation



Conclusion



- Highly efficient process to evaluate and compare bioanalytical CROs and Phase I Units in a very limited period of time
- Survey was very helpful for the preparation of the audits
- Standardized template for laboratory tour enabled straight forward documentation
- Evaluation procedure using scores and business clusters was helpful to achieve an unbiased judgement
- Cooperation of several internal functions was very supportive for the establishment of streamlined processes



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Thank you