

Matchmaking Symposium 'Emerging Technologies in AMR

Utrecht, The Netherlands, 14 November 2018

Summary Round Table sessions

Round Table 'Faster sharing of scientific data on AMR technologies' (sponsor: PLOS)

Generating novel scientific data, knowledge and insights is of key importance in the global fight against Antimicrobial resistance (AMR). New information needs to be published, shared and effectively applied as quickly as possible. In practice researchers in academia, professional universities, research institutions and in private companies may face hurdles, unwanted delay and increasing costs to get information published. The objective of the Round Table session is to identify workable solutions for stakeholders involved with the aim to add to the global fight against AMR.

Described hurdles include:

- Difficult to publish novel data for scientists; this may take 2-3 years and scientists feel they do not get the credit when publishing new data.
- When coming up with new data it is easier to start from a novel data collection instead of building upon existing data collections. This leads to unwanted segmentation.
- Data often lack semantic interoperability.
- There is lack of funding as well as good formats for data to share; private universities may have (more) funding available and will publish more data.
- Data are very often not reproducible due to different experimental conditions. These conditions must be much better mentioned and described: the need for minimal reporting standards.
- AMR is an issue for widely diverging stakeholders which makes effective spreading and useful dissemination of knowledge increasingly difficult.
- It is felt that AMR does not get the proper attention. AMR is not 'first in row' like e.g. oncology.
- There is no single journal focusing on AMR only; Antimicrobials Agents and Chemotherapy (AAC) is more or less approaching this. The PLOS AMR Channel may take this 'niche'.
- There are frequent hold ups when publishing: NDA's and CDA's, contractual limitations etc
- Data may be withheld awaiting clinical validation causing unwanted delay.

Suggested solutions include:

1. To share data and information in a more informal way in precompetitive collaborations.
2. To publish information produced with public funding free of charge (customary in the USA).
3. To provide additional funding for publishing / sharing of information in view of the global relevance of newly generated insights in AMR.
4. To increase the awareness of Antimicrobial resistance (AMR) and make the problem more concrete and 'appealing' to professionals to substantially enhance its relevance. AMR should also be much more explained to stakeholders (politicians, policymakers, those who pay).
5. To not only focus on generating data (for research purposes) but also on curating content (interpreting data) for professional use.
6. To make clear, unequivocal agreements on the nomenclature and vocabulary on AMR (WHO?).

Round Table ‘Industry – Hospital collaborations to implement novel diagnostics’ (sponsor BD NL)

Novel microbial diagnostics play an increasingly important role in tackling Antimicrobial resistance (AMR). Diagnostics companies, including start-up’s, SME’s and multinational companies increasingly face barriers when implementing novel diagnostics in hospitals and medical microbiology laboratories. The objective of the Round Table session is to identify workable solutions for stakeholders involved with the aim to add to the global fight against AMR.

Described hurdles include:

- Hospitals and laboratories are increasingly busy; there is limited time for implementing novel tests let it be for their validation. Hospitals ask for financial compensation for testing new tests.
- Start-up’s and SME’s often lack the financial means to implement, let it be validate, novel tests.
- Hospitals play their own game: they shop around to find the most attractive collaborations.
- The ‘informed consent’ is a barrier for also analyzing existing samples with other, novel tests.
- Validation of novel tests must take place ‘on site’ so companies are dependent on hospitals and their laboratories. RVO (Netherlands Enterprise Agency) may provide funding for validation.
- Subsidies for research, development, validation & implementation of diagnostics are scattered.
- There is unclearness as to the reimbursement of novel tests which makes implementing difficult.
- Many new diagnostics technologies are being offered. The technologies differ substantially and all have their own advantages, disadvantages and hence niches in the diagnostics market.
- There is limited sense of urgency at hospitals and medical microbiology laboratories.
- There seems to be an unjustified mistrust on (big) pharma and diagnostics companies as if the outcome of diagnostic tests undesirably favor the sales of specific antibiotics and antimicrobials.

Suggested solutions include:

1. To set up a well prepared decision-making conference with all stakeholders involved to work out a robust and workable procedures for industry-hospital collaborations.
2. To better connect at a personal & company level between ‘suppliers’ and ‘purchasers’.
3. To create much more awareness on the ‘live saving, critical care’ role of microbial diagnostics in hospitals and medical microbiology laboratories.
4. To implement ‘templates’ which clearly indicate the impact of novel tests: time and costs to be saved as well as improved diagnoses / less casualties to be expected.
5. To involve hospitals and medical microbiology laboratories in the research and development of novel tests. There should be a close collaboration during the research, development, validation and implementation phases whereby parties may also co-publish relevant results.
6. To develop some kind of ‘diagnostic stewardship’ likewise to ‘antibiotic stewardship’ and to position this within the different health care systems.
7. To include branch and other stakeholder organizations in the anticipated industry-hospital collaborations.