EUCAST news 2017

ECCMID 2017

Marina Ivanova

ECCMID 2017

- EUCAST workshop
- EUCAST GC meeting
- EUCAST posterid

EUCAST breakpoints - perspektiiv

- MIKi korrelatsioonid diskdifusiooni tsoonidega 2016-2017:
  - *Aeromonas* spp.
  - *Plesiomonas shigelloides*
- Meetodi väljatöötamine ja hinnang 2017:
  - *Vibrio* spp.
  - *Nocardia* spp.
  - Anaeroobid (fast-growing)

EUCAST breakpoints - perspektiiv

- Plaanis alates 2018.aastast:
  - HACEK (v.a. *Kingella kingae*)
  - *Streptomyces* spp.
  - *Leuconostoc* spp.
  - *Lactobacillus* spp.
  - *Abiotrophia* ja *Granulicatella* spp.
  - *Gemella* spp.
  - *Achromobacter* spp.
  - *Bacillus* spp. (v.a. *B. anthracis*)
  - *Pediococcus* spp.

Expert rules

- Intrinsic resistance and exceptional phenotypes on valmis ja avaldatud
- Expert rules muu osa on plaanis arutada kohe pärast ECCMIDi (SC koosolekul) ning avaldada käesoleva aasta lõpuni
  - Sören Gatermann (Bochum, Saksamaa, EUCAST SC) on tutvustanud planeeritavaid muudatusi
  - Nt. D-testi fenomeeni rakendatavus osa korünebakterite liikide jaoks

08:45 - 12:45
Antimicrobial susceptibility testing with EUCAST breakpoints and methods

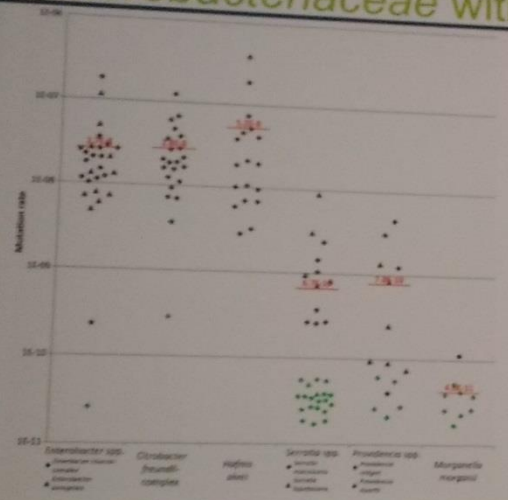
Chairs: Alasdair P. MacGowan
John D. Turnidge

10:01
Hall A

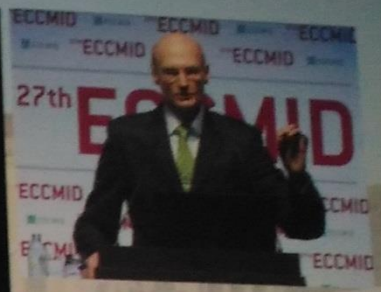
Expert Rules for *Enterobacteriaceae* with AmpC

RUHR-UNIVERSITÄT BOCHUM

RUB



Kohlmann et al
Poster P0239 session P011



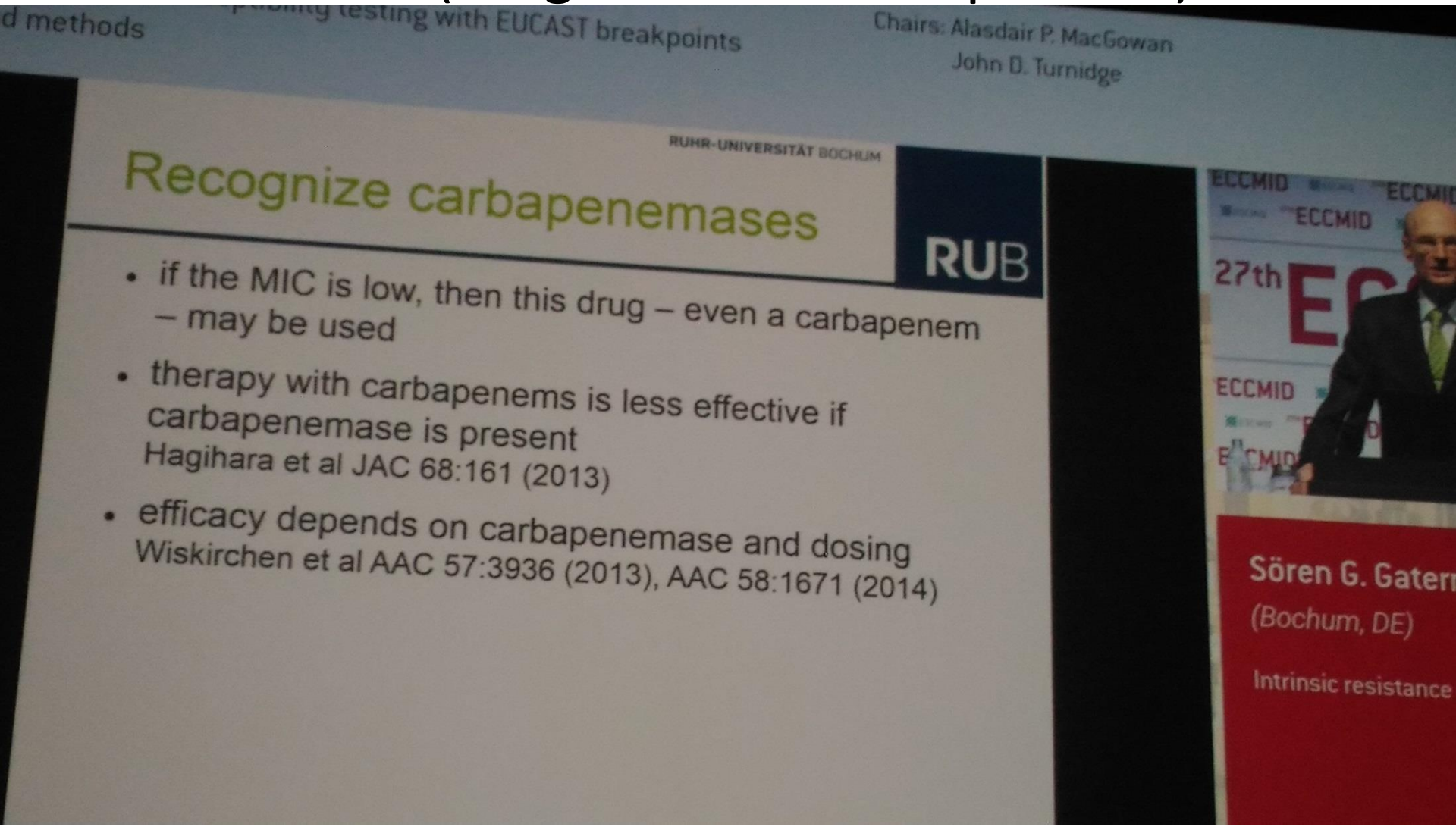
Sören G. Gatermann
(Bochum, DE)

Intrinsic resistance and expert rules

27th ECCMID Vienna, Austria 22 – 25 April 2017

ESCMID

NB! Hetkel on karbapeneemide diskide tulemused (kalibratsioonid) on täpsemad, kui gradientribade omad (seega tulemused täpsemad)



Antimicrobial susceptibility testing with EUCAST breakpoints and methods

Chairs: Alasdair P. MacGowan
John D. Turnidge

RUHR-UNIVERSITÄT BOCHUM

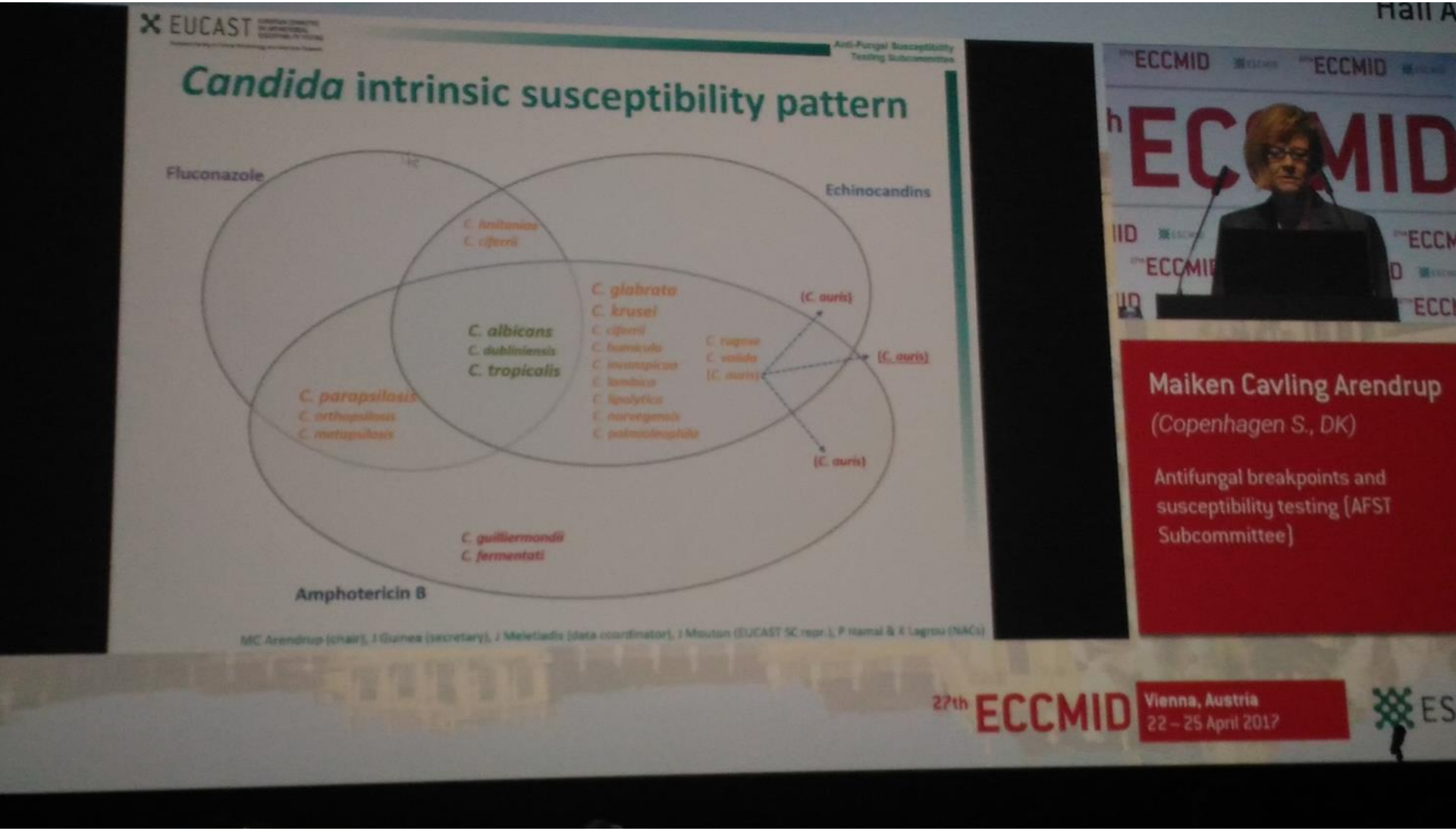
Expert rule for carbapenemases

RUB

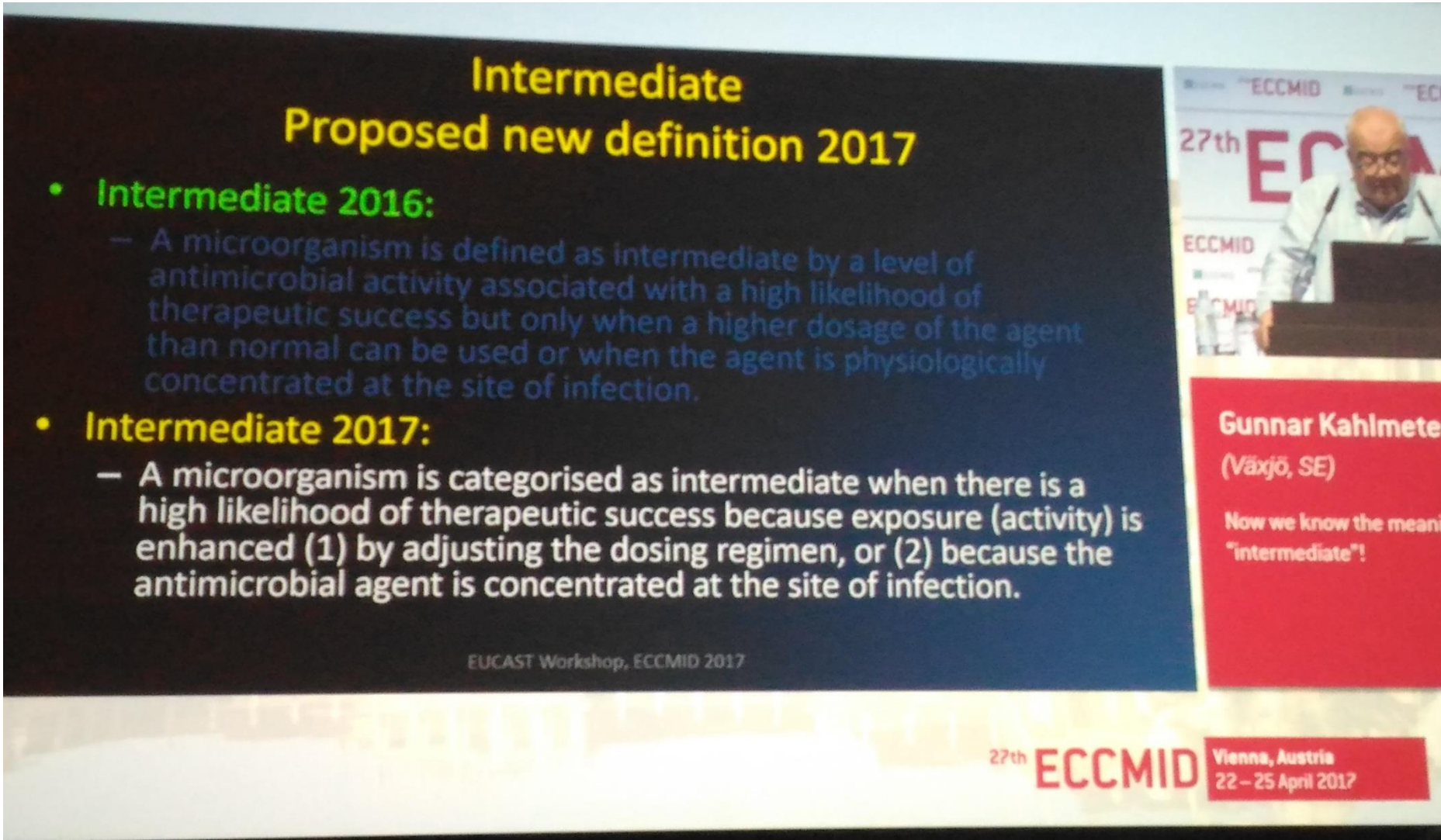
IF MIC of meropenem > 0.12 **OR** zone diameter < 27 mm
THEN
test and report MIC
check for presence of carbapenemase
IF carbapenemase positive
THEN
add comment that therapy may need combination

Sören G. Ga
(Bochum, DE)
Intrinsic resista

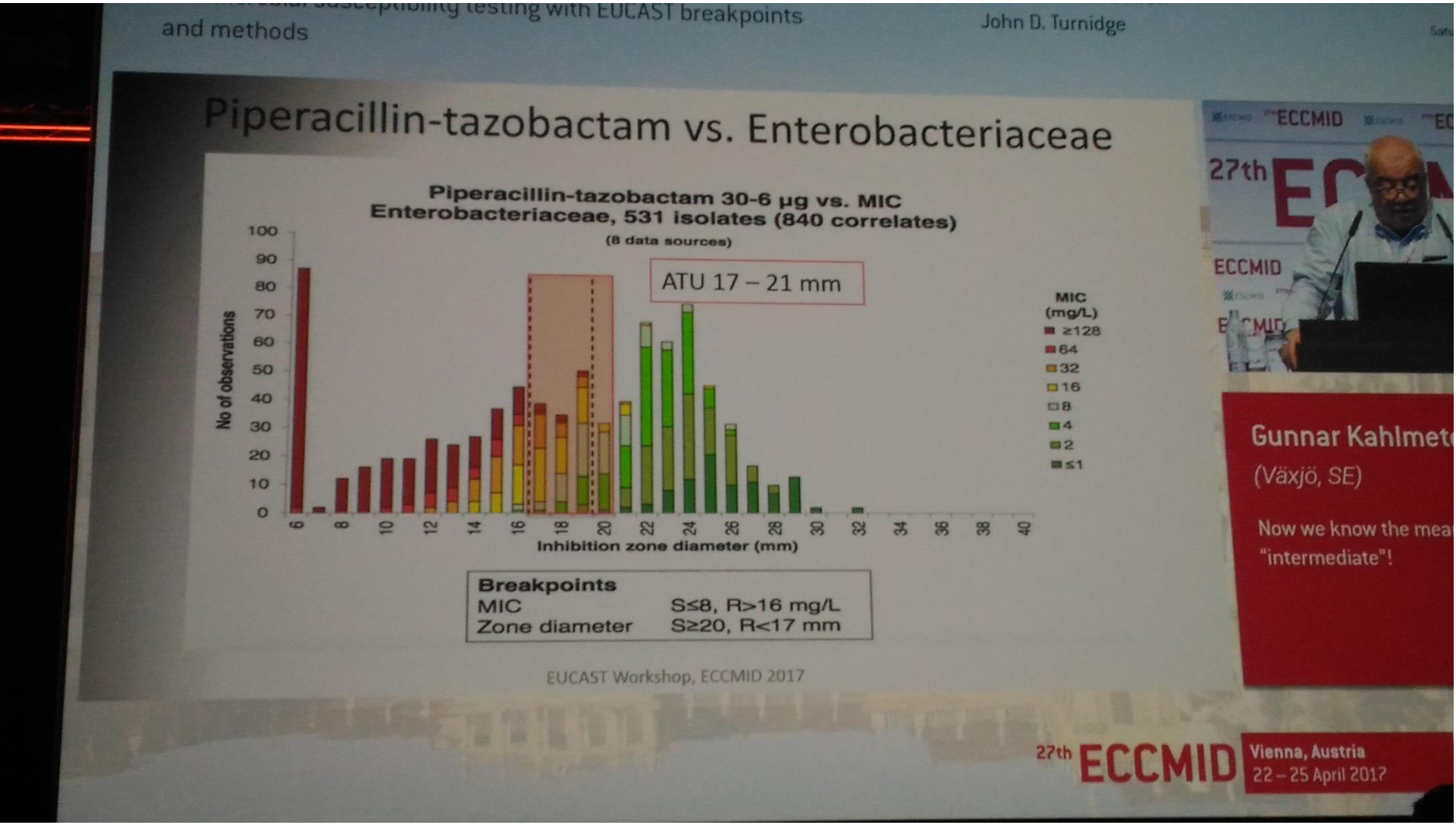
AFST


EUCAST
Anti-Fungal Susceptibility Testing Subcommittee
Candida intrinsic susceptibility pattern
Fluconazole
Echinocandins
Amphotericin B
C. albicans
C. dubliniensis
C. tropicalis
C. glabrata
C. krusei
C. parapsilosis
C. orthopsilosis
C. metapsilosis
C. guilliermondii
C. fermentati
(C. auris)
(C. auris)
(C. auris)
ECCMID
Maiken Cavling Arendrup
(Copenhagen S., DK)
Antifungal breakpoints and susceptibility testing (AFST Subcommittee)
27th ECCMID
Vienna, Austria
22 – 25 April 2017

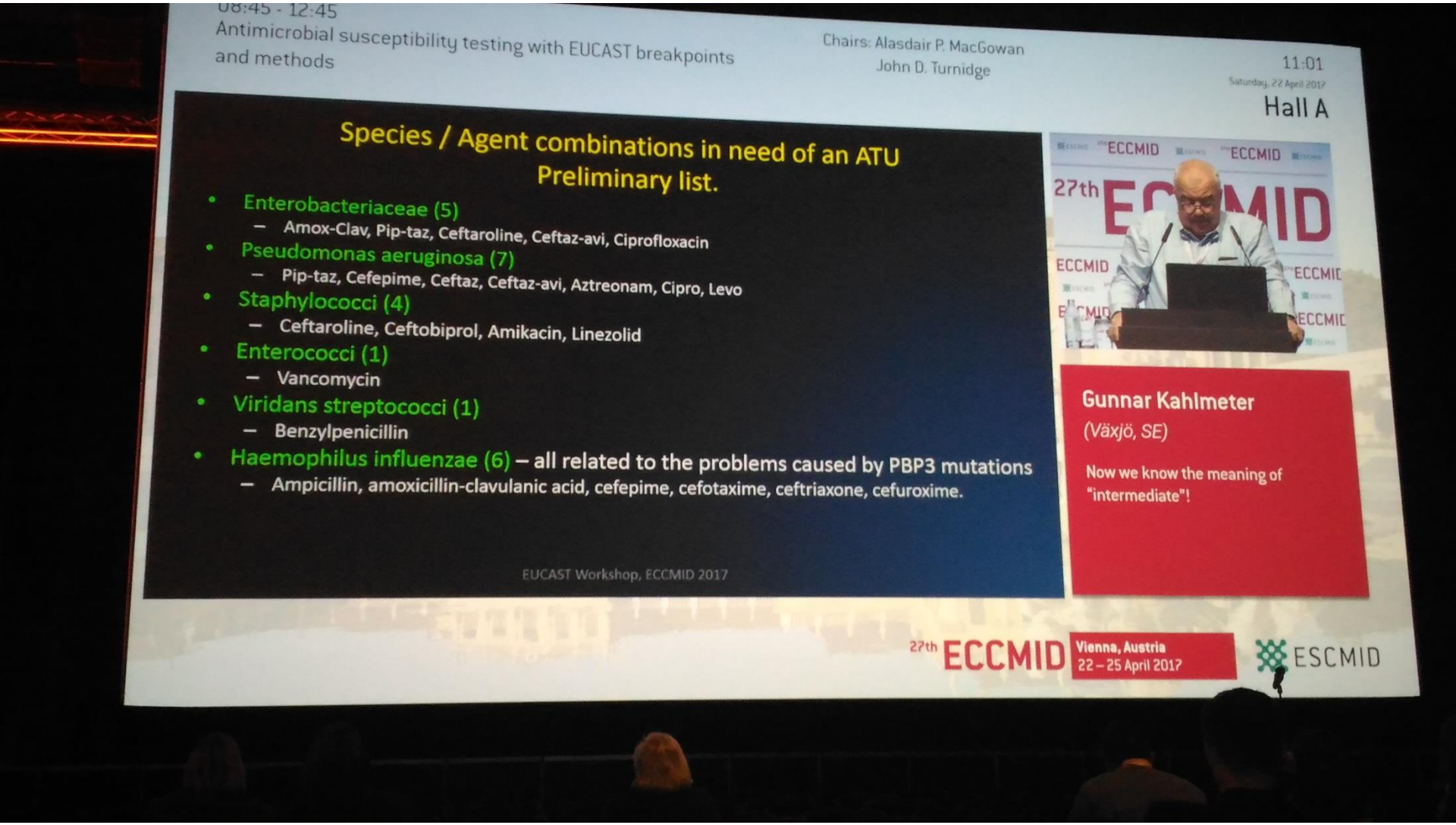
MT=Intermediate kategooria uus definitsioon



ATU = area of technical uncertainty



Olulisemad kombinatsioonid



Antimicrobial susceptibility testing with EUCAST breakpoints and methods

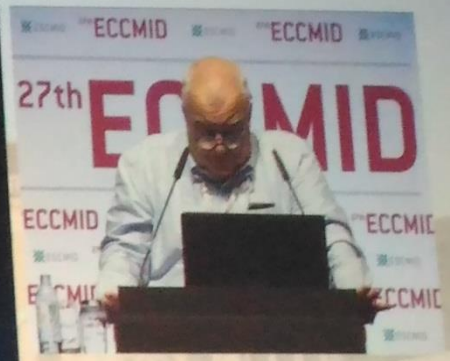
Chairs: Alasdair P. MacGowan
John D. Turnidge

11:03
Saturday, 22 April 2017
Hall A

In summary

- Intermediate will be used to signify a need for higher exposure
- The need for a buffer (identifying an area of technical uncertainty) to prevent errors is limited and possible to identify – it is the responsibility of the laboratory and should be solved before reporting AST results.
- EUCAST breakpoints which have both S/I- and I/R breakpoints will have at least two significantly different dosages.

EUCAST Workshop, ECCMID 2017



Gunnar Kahlmeter
(Växjö, SE)

Now we know the meaning of "intermediate"!

27th ECCMID Vienna, Austria 22 – 25 April 2017

08:45 - 12:45
Antimicrobial susceptibility testing with EUCAST breakpoints and methods

Chairs: Alasdair P. MacGowan
John D. Turnidge

11:43
Saturday, 22 April 2017
Hall A

Sources of errors in disk diffusion

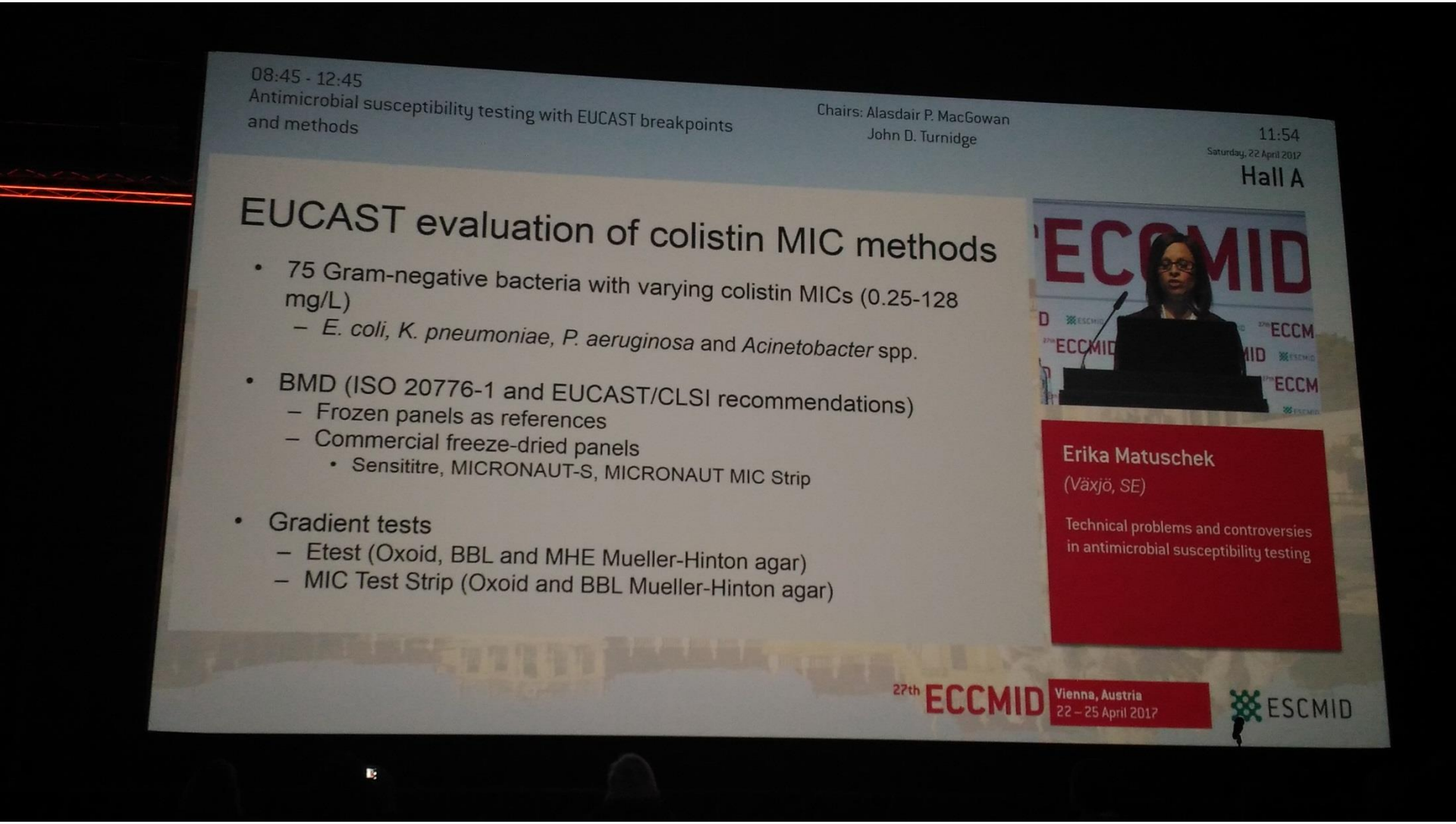
- Disks
  - Incorrect disk potency
  - Incorrect handling and storage
  - Disk quality
- Media
  - Quality of agar base
  - Supplements
  - pH, agar depth
  - Excess humidity

Erika Matuschek
(Växjö, SE)

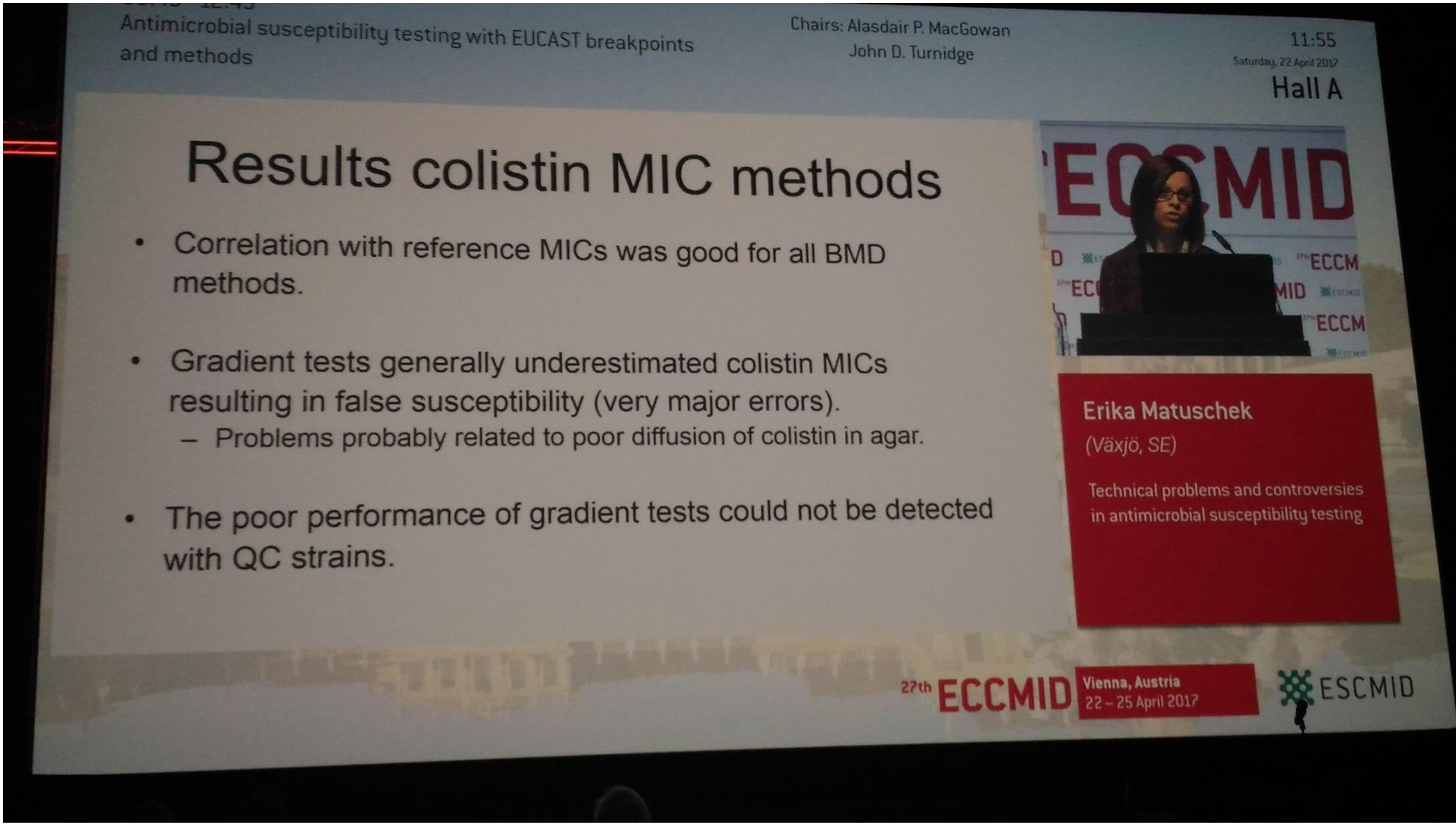
Technical problems and controversies in antimicrobial susceptibility testing

27th ECCMID Vienna, Austria 22 – 25 April 2017 ESCMID

Colistin


08:45 - 12:45
Antimicrobial susceptibility testing with EUCAST breakpoints and methods
Chairs: Alasdair P. MacGowan
John D. Turnidge
11:54
Saturday, 22 April 2017
Hall A
EUCAST evaluation of colistin MIC methods
• 75 Gram-negative bacteria with varying colistin MICs (0.25-128 mg/L)
– E. coli, K. pneumoniae, P. aeruginosa and Acinetobacter spp.
• BMD (ISO 20776-1 and EUCAST/CLSI recommendations)
– Frozen panels as references
– Commercial freeze-dried panels
• Sensititre, MICRONAUT-S, MICRONAUT MIC Strip
• Gradient tests
– Etest (Oxoid, BBL and MHE Mueller-Hinton agar)
– MIC Test Strip (Oxoid and BBL Mueller-Hinton agar)
Erika Matuschek
(Växjö, SE)
Technical problems and controversies in antimicrobial susceptibility testing
27th ECCMID
Vienna, Austria
22 – 25 April 2017
ESCMID

Colistin kui metoodiliselt probleemne antibiootikum



P 165 Proposed breakpoints for rapid antimicrobial susceptibility testing with disk diffusion tests direct from positive blood cultures for *Escherichia coli, Klebsiella pneumoniae, Staphylococcus aureus* and *Streptococcus pneumoniae*

- **The objectives** of this study was to
  - i) evaluate RAST with disk diffusion directly from positive blood culture bottles and
  - ii) to shorten the time even further compared to using a McFarland 0.5 inoculum
- Disk diffusion following direct inoculation of susceptibility plates from positive blood cultures with reading after 4, 6 and 8 hours incubation is possible if an "Area of Technical Uncertainty" (ATU) is introduced. Isolates with results within ATU after 4 or 6 hours incubation should be reincubated up to a total of 8 hours. Isolates with results within the ATU also after 8 hours incubation must be retested with standard methodology.
- The method has also been evaluated for *Enterococcus faecalis*, *Enterococcus faecium*, *Pseudomonas aeruginosa* and *Haemophilus influenzae,* with promising results. Evaluation of the proposed method and breakpoints for clinical isolates at additional laboratories is in progress.

Uued tehnoloogiad

- Accelerate Pheno System
  - FISH samastamiseks ja kiire AST määramiseks
  - 15 mikroobi (gram-pos ja gram-neg) ja 2 pärmseent (ID 1,5 tunniga)
  - MIK ja interpretatsioon 18 antibiootikumi jaoks ning MRSA ja MLSb fenotüüpiline detekteerimine (kuni 7 tundi)
  - FDA registratsioon veebruaris 2017
  - Lahendatud monokultuuri jaoks, polümikroobne kasv on lahendamata