



## API & ID 32 IDENTIFICATION DATABASES |



TEL : 02-2298-1823 / FAX : 02-2298-8100  
24889 新北市新莊區新北產業園區五工五路21號  
www.cmp-micro.com



 **Creative**  
CREATIVE LIFESCIENCES  
啟新生物科技

TEL : 02-2298-1823 / FAX : 02-2298-8100  
24889 新北市新莊區新北產業園區五工五路21號  
www.cmp-micro.com

# INTRODUCTION

The API<sup>®</sup>, ID 32 and rapid ID 32 database update takes into account:

- the evolution of international taxonomy
- the description of the new bacterial species,
- newly acquired bacteriology data (new profiles for bacterial strains which have an impact on performance data)

As a result of the update, the APIWEB™ software version has changed from version 1.2.1 to version 1.3.0

The API and ID 32 databases have again been updated

Twenty-two of the twenty-three identification databases have been revised, taking account the biochemical profiles of over 56,277 strains. Today, 697 species of bacteria and yeasts can be identified, including 14 new species and 50 that have been assigned new names.

**The changes made can be broken down as follows:**

**A number of new species** have been added to the database (including both entirely new species and others added on the basis of new results).

**Certain bacterial species** have been deleted due to more stringent criteria. Certain rare species which are not sufficiently studied have been removed from the database.

**The names of certain species** have been changed to follow modifications in the bacterial taxonomy as officially described in the International Journal of Systematic and Evolutionary Microbiology.

**Notes have been revised** to reflect the changes in names and the species added and deleted.

**Percentages and performances** have been altered to reflect variations observed in the profiles analyzed as the database was revised.

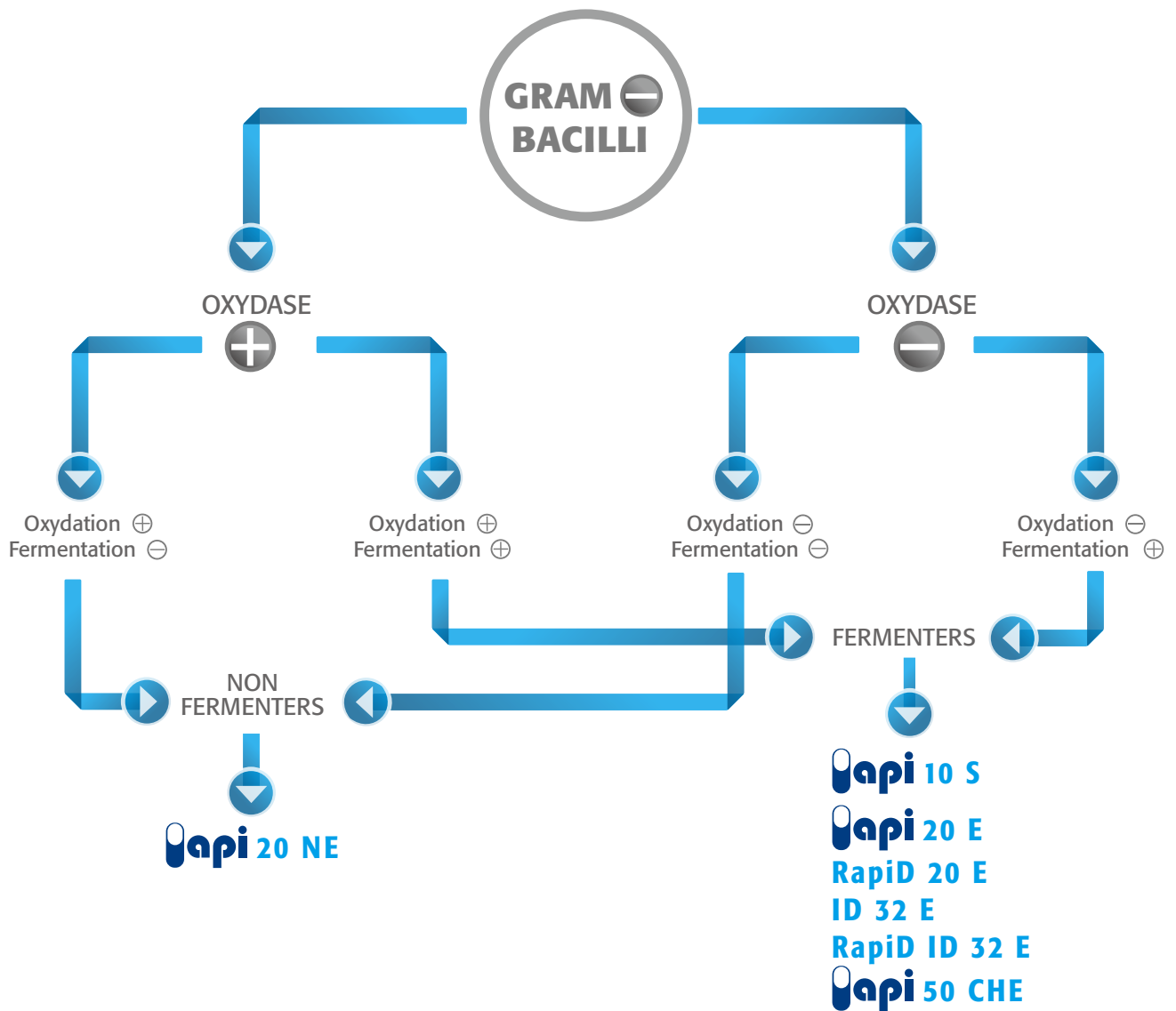
**Additional tests** were modified to reflect the new reference information available.

# WHAT'S CHANGED IN THE DATABASES?

Database	Version number		Changes to thesaurus		Changes to database	
	old	new	Taxons	Notes	Identification	Additional tests
API® 20 E	v 4.1	v 5.0	X	X	X	X
RapiD 20 E™	v 3.1	v 3.2	X	-	-	-
API® 10 S	v 3.1	v 4.0	X	X	X	-
API® 20 NE	v 7.0	v 8.0	X	X	X	-
API® STAPH	v 4.1	v 5.0	-	-	X	-
API® 20 STREP	v 7.0	v 8.0	X	X	X	X
API® 20 C AUX	v 4.0	v 5.0	X	X	X	-
API® CANDIDA	v 2.1	v 2.2	X	X	-	-
API® 20 A	v 4.0	v 5.0	X	X	X	X
API® CORYNE	v 3.0	v 4.0	X	X	X	-
API® CAMPY	v 2.1	v 3.0	X	-	X	-
API® LISTERIA	v 1.2	v 2.0	-	X	X	-
API® NH	v 3.0	v 4.0	X	X	X	-
API® 50 CHB	v 4.0	v 4.1	X	-	-	-
API® 50 CHE	v 3.1	v 3.2	X	-	-	-
API® 50 CHL	v 5.1	v 5.2	X	-	-	-
ID 32 E	v 3.0	v 4.0	X	-	X	X
rapid ID 32 E	v 3.1	v 4.0	X	-	X	X
ID 32 STAPH	v 2.1	v 3.0	X	X	X	X
rapid ID 32 STREP	v 3.0	v 4.0	X	X	X	X
ID 32 C	v 3.0	v 4.0	X	X	X	X
rapid ID 32 A	v 3.2	v 3.3	X	-	-	-

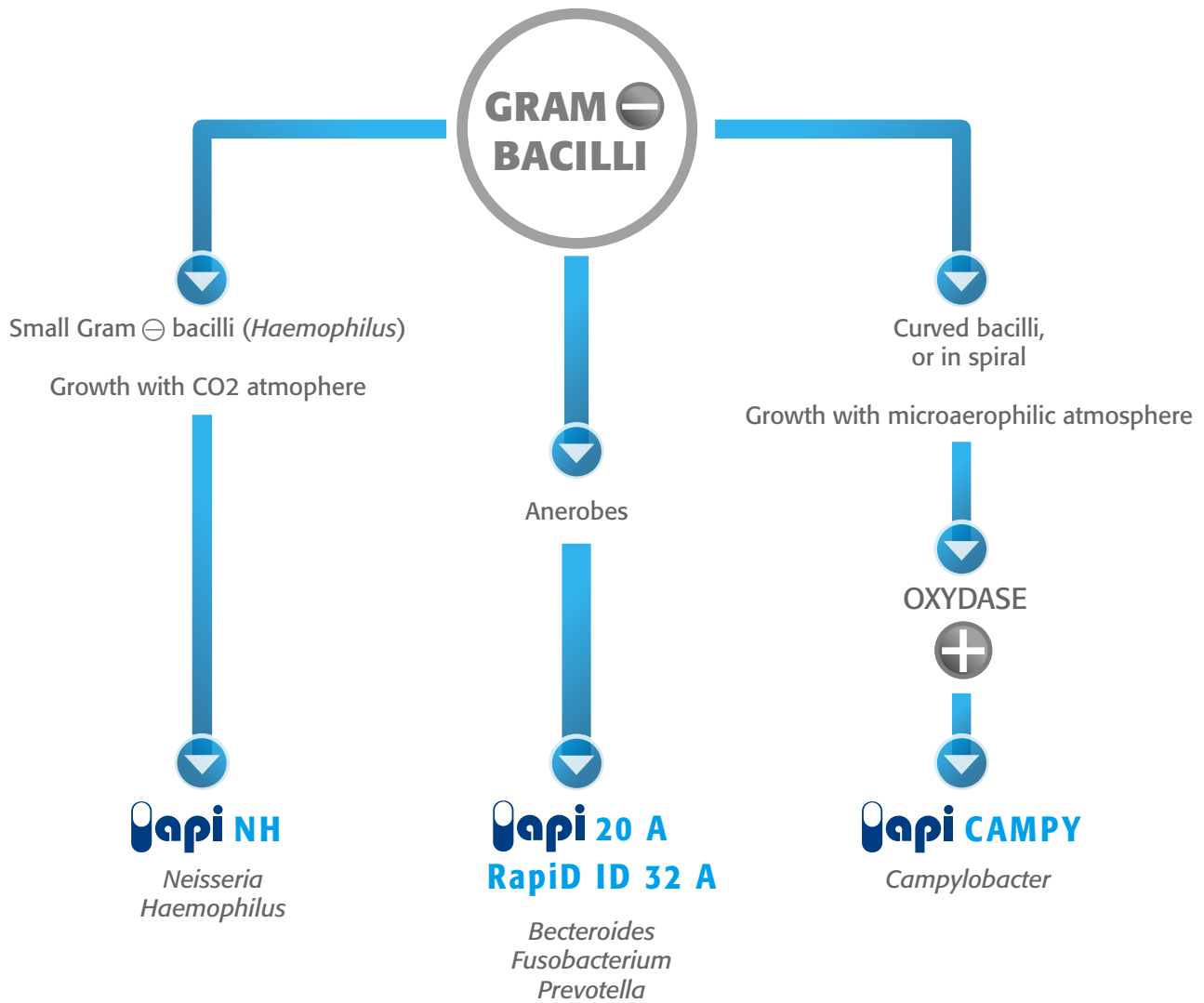
# ORIENTATION TESTS

## GRAM<sup>-</sup> BACILLI



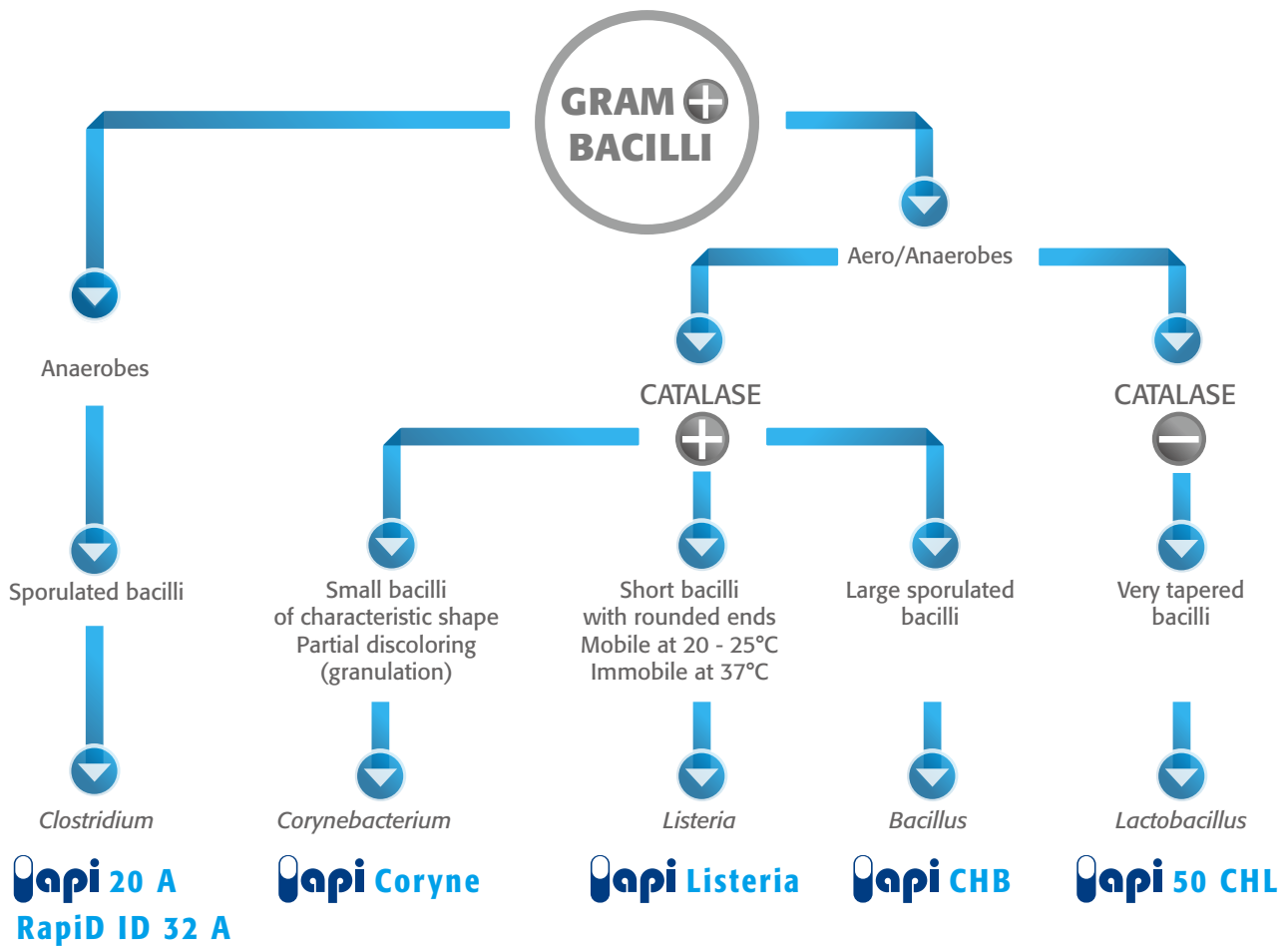
# ORIENTATION TESTS

## OTHER GRAM<sup>-</sup> BACILLI



# ORIENTATION TESTS

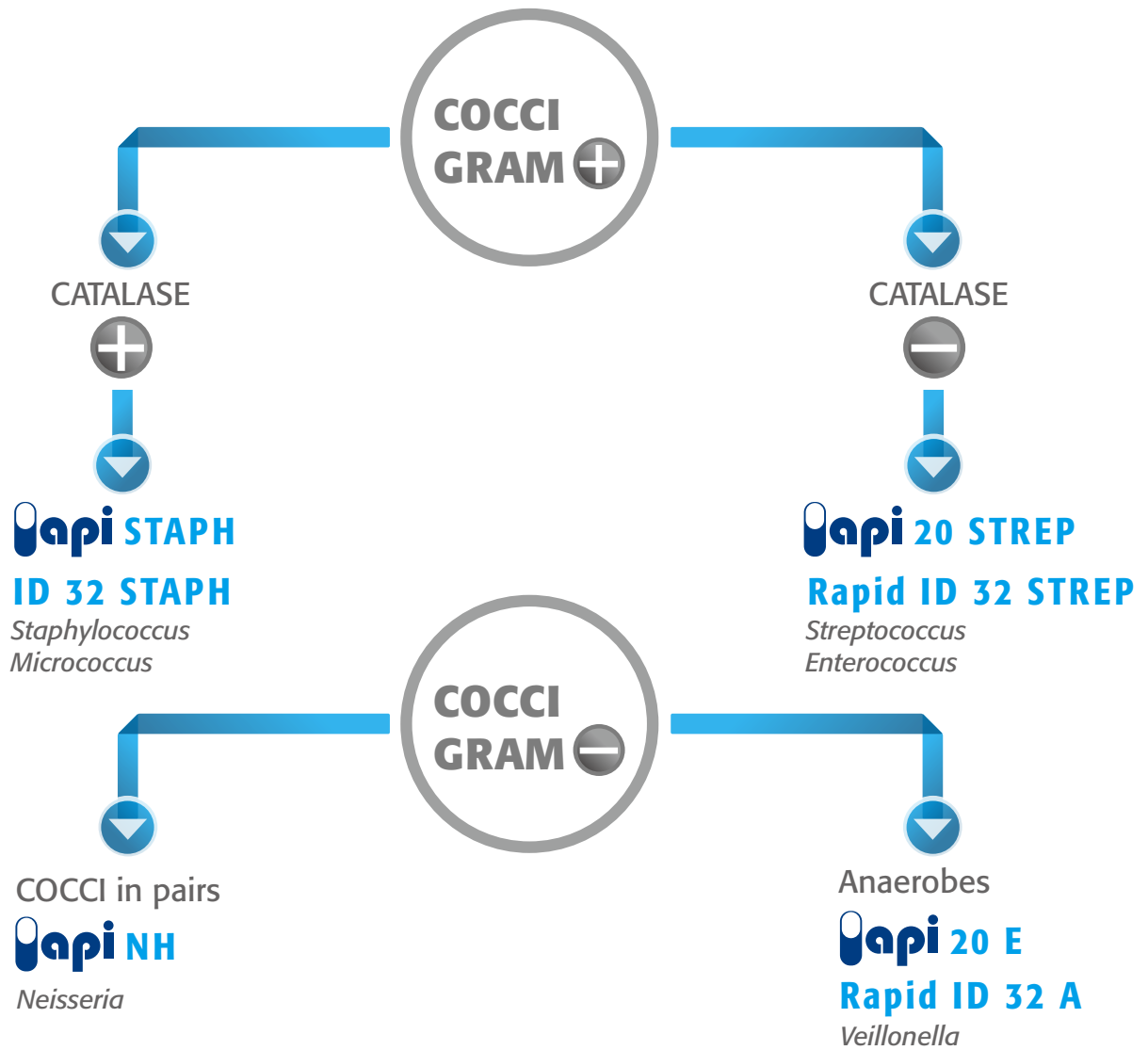
## GRAM<sup>+</sup> BACILLI





# ORIENTATION TESTS

## COCCI



# ORIENTATION TESTS

## YEASTS



Assimilation tests

Sugar acidification or  
enzymatic tests

**api 20C AUX**  
**ID 32 C**

*Candida*  
*Cryptococcus*  
*Geotrichum*  
*Kloeckera*  
*Pichia*  
*Rhodoturela*  
*Trichosporon*

**api CANDIDA**

*Candida*  
*Cryptococcus*  
*Saccharomyces*  
*Trichosporon*

# SPECIES IDENTIFIABLE BY THE VARIOUS IDENTIFICATION SYSTEMS

API® 20 E	Gram-negative bacilli
API® 10 S	Gram-negative bacilli
Rapid 20E™	<i>Enterobacteriaceae</i>
API® 20 NE	Gram-negative non- <i>Enterobacteriaceae</i>
API® Staph	Staphylococci
API® 20 Strep	Streptococci
API® Candida	Yeasts
API® 20 C AUX	Yeasts
API® 20 A	Anaerobes
API® Coryne	Corynebacteria
API® Campy	<i>Campylobacter</i>
API® Listeria	<i>Listeria</i>
API® NH	<i>Neisseria, Haemophilus</i>
API® 50 CHE	<i>Enterobacteriaceae</i>
AP® I 50 CHL	Lactic bacteria
API® 50 CHB	<i>Bacillus</i>
ID 32 E	Gram-negative bacilli
Rapid ID 32 E	<i>Enterobacteriaceae</i>
ID 32 GN	Gram-negative bacilli
ID 32 STAPH	Staphylococci
Rapid ID 32 STREP	Streptococci
ID 32 C	Yeasts
Rapid ID 32 A	Anaerobes

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Abiotrophia defectiva</i>				●			●																	●	
<i>Achromobacter denitrificans</i>				●																					
<i>Achromobacter xylosoxidans</i>				●																					
<i>Acinetobacter/Moraxella spp</i>			●																		●				
<i>Acinetobacter/Pseudomonas spp</i>		●																			●				
<i>Acinetobacter baumannii</i>	●	●		●																	●				
<i>Acinetobacter baumannii/calcoaceticus</i>	●			●																					
<i>Acinetobacter calcoaceticus</i>	●			●																					
<i>Acinetobacter haemolyticus</i>				●																					
<i>Acinetobacter johnsonii</i>				●																					
<i>Acinetobacter junii</i>				●																					
<i>Acinetobacter junii/johnsonii</i>				●																					
<i>Acinetobacter lwoffii</i>				●																					
<i>Acinetobacter radioresistens</i>				●																					
<i>Acinetobacter spp</i>			●																		●				
<i>Actinobacillus pleuropneumoniae</i>														●	●										
<i>Actinomyces israelii</i>											●														●
<i>Actinomyces meyeri</i>											●														●
<i>Actinomyces meyeri/odontolyticus</i>											●														●
<i>Actinomyces naeslundii</i>											●														●
<i>Actinomyces neuii ssp anitratus</i>												●													●
<i>Actinomyces neuii ssp neuii</i>												●													●
<i>Actinomyces odontolyticus</i>											●														●
<i>Actinomyces radingae</i>											●														●
<i>Actinomyces turicensis</i>											●														●
<i>Actinomyces viscosus</i>											●														●
<i>Aeromonas caviae</i>	●			●											●						●				
<i>Aeromonas hydrophila/caviae</i>				●																					
<i>Aeromonas hydrophila</i>	●	●	●	●											●						●				
<i>Aeromonas hydrophila/caviae/sobria</i>	●																								
<i>Aeromonas salmonicida ssp achromogenes</i>				●																					
<i>Aeromonas salmonicida masoucida/achromogenes</i>				●																					
<i>Aeromonas salmonicida ssp masoucida</i>				●																					
<i>Aeromonas salmonicida ssp salmonicida</i>	●			●											●						●				
<i>Aeromonas sobria</i>	●			●											●						●				
<i>Aerococcus urinae</i>							●																●		●
<i>Aerococcus viridans</i>							●									●						●			●
<i>Aggregatibacter actinomycetemcomitans</i>														●											
<i>Aggregatibacter aphrophilus</i>														●											
<i>Alcaligenes faecalis</i>				●																					
<i>Alcaligenes spp</i>	●																				●				
<i>Alloiooccus otitis</i>							●																	●	
<i>Anaerobiospirillum succiniciproducens</i>																									●
<i>Anaerococcus prevotii</i>											●														●
<i>Aneurinibacillus aneurinilyticus</i>																	●								
<i>Arcanobacterium haemolyticum</i>											●														
<i>Arcobacter cryaerophilus</i>												●													
<i>Arthrobacter spp</i>											●														
<i>Avibacterium paragallinarum</i>														●											
<i>Bacillus amyloliquefaciens</i>																	●								
<i>Bacillus anthracis</i>																	●								

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Bacillus badius</i>																	●								
<i>Bacillus cereus</i>																	●								
<i>Bacillus circulans</i>																	●								
<i>Bacillus coagulans</i>																	●								
<i>Bacillus firmus</i>																	●								
<i>Bacillus lentus</i>																	●								
<i>Bacillus licheniformis</i>																	●								
<i>Bacillus megaterium</i>																	●								
<i>Bacillus mycoides</i>																	●								
<i>Bacillus pumilus</i>																	●								
<i>Bacillus smithii</i>																	●								
<i>Bacillus subtilis</i>																	●								
<i>Bacillus subtilis/amyloliquefaciens</i>																	●								
<i>Bacillus thuringiensis</i>																	●								
<i>Bacteroides caccae</i>										●															●
<i>Bacteroides eggerthii</i>										●															●
<i>Bacteroides fragilis</i>										●															●
<i>Bacteroides ovatus</i>										●															●
<i>Bacteroides ovatus/thetaiotaomicron</i>										●															●
<i>Bacteroides stercoris/eggerthii</i>										●															●
<i>Bacteroides stercoris</i>										●															●
<i>Bacteroides thetaiotaomicron</i>										●															●
<i>Bacteroides uniformis</i>										●															●
<i>Bacteroides vulgatus</i>										●															●
<i>Bacillus non reactive</i>																	●								
<i>Bergeyella zoohelcum</i>				●															●						
<i>Bibersteinia trehalosi</i>	●			●															●						
<i>Bifidobacterium adolescentis</i>										●															●
<i>Bifidobacterium bifidum</i>										●															●
<i>Bifidobacterium breve</i>										●															●
<i>Bifidobacterium dentium</i>										●															●
<i>Bifidobacterium longum</i>										●															●
<i>Bifidobacterium spp</i>										●															●
<i>Bordetella/Alcaligenes/Moraxella spp</i>	●																								
<i>Bordetella avium</i>				●																					
<i>Bordetella bronchiseptica</i>				●																●					
<i>Bordetella spp</i>	●																								
<i>Brevundimonas diminuta/Oligella urethralis</i>				●																					
<i>Brevundimonas diminuta</i>				●																					
<i>Brevundimonas vesicularis</i>				●																					
<i>Brevibacillus agri</i>																	●								
<i>Brevibacillus borstelensis</i>																	●								
<i>Brevibacillus brevis</i>																	●								
<i>Brevibacillus centrosporus</i>																	●								
<i>Brevibacillus choshinensis</i>																	●								
<i>Brevibacillus laterosporus</i>																	●								
<i>Brevibacillus non reactive</i>																	●								
<i>Brevibacterium casei</i>											●														
<i>Brevibacterium epidermidis</i>											●														
<i>Brevibacterium spp</i>											●														
<i>Brochothrix thermosphacta</i>																	●								

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Brucella spp</i>	●																			●					
<i>Budvicia aquatica</i>																				●					
<i>Burkholderia cepacia</i>	●		●	●																	●				
<i>Burkholderia gladioli</i>				●																					
<i>Burkholderia pseudomallei</i>				●																					
<i>Buttiauxella agrestis</i>	●		●												●					●					
<i>Candida albicans</i>								●	●																●
<i>Candida boidinii</i>								●	●																●
<i>Candida citrini</i>									●																●
<i>Candida colliculosa</i>									●																●
<i>Candida dattila</i>									●																●
<i>Candida dubliniensis</i>									●																●
<i>Candida famata</i>								●	●																●
<i>Candida glabrata</i>								●	●																●
<i>Candida globosa</i>									●																●
<i>Candida guilliermondii</i>								●	●																●
<i>Candida hellenica</i>									●																●
<i>Candida holmii</i>									●																●
<i>Candida inconspicua/norvegensis</i>									●																●
<i>Candida inconspicua</i>								●	●																●
<i>Candida intermedia</i>									●																●
<i>Candida kefyr</i>								●	●																●
<i>Candida krusei</i>								●	●																●
<i>Candida krusei/inconspicua</i>									●																●
<i>Candida lambica</i>								●	●																●
<i>Candida lipolytica</i>									●																●
<i>Candida lusitanae</i>								●	●																●
<i>Candida magnoliae</i>									●																●
<i>Candida melibiosica</i>									●																●
<i>Candida membranifaciens</i>									●																●
<i>Candida norvegensis</i>								●	●																●
<i>Candida norvegica</i>									●																●
<i>Candida parapsilosis</i>								●	●																●
<i>Candida pelliculosa</i>									●																●
<i>Candida pulcherrima</i>									●																●
<i>Candida rugosa</i>									●																●
<i>Candida sake</i>									●																●
<i>Candida silvicola</i>									●																●
<i>Candida spherica</i>									●																●
<i>Candida thermophila</i>									●																●
<i>Candida tropicalis</i>								●	●																●
<i>Candida utilis</i>									●																●
<i>Candida valida</i>									●																●
<i>Candida zeylanoides</i>									●																●
<i>Campylobacter coli</i>																									●
<i>Campylobacter fetus ssp venerealis</i>																									●
<i>Campylobacter fetus ssp fetus</i>																									●
<i>Campylobacter hyointestinalis</i>																									●
<i>Campylobacter jejuni ssp doylei</i>																									●
<i>Campylobacter jejuni ssp jejuni</i>																									●
<i>Campylobacter lari</i>																									●

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A	
<i>Campylobacter lari</i> UPTC												●														
<i>Campylobacter mucosalis</i>												●														
<i>Campylobacter sputorum ssp bubulus</i>												●														
<i>Campylobacter sputorum bv Fecalis</i>												●														
<i>Campylobacter sputorum bv Sputorum</i>												●														
<i>Campylobacter upsaliensis</i>												●														
<i>Campylobacter ureolyticus</i>										●																●
<i>Capnocytophaga gingivalis</i>																										●
<i>Capnocytophaga ochracea</i>																										●
<i>Capnocytophaga sputigena</i>																										●
<i>Capnocytophaga spp</i>																										●
<i>Carnobacterium divergens</i>																	●									
<i>Carnobacterium maltaromaticum</i>																	●									
<i>Cedecea davisae</i>	●		●												●						●					
<i>Cedecea lapagei</i>	●		●												●						●					
<i>Cedecea lapagei/neteri</i>															●											
<i>Cedecea neteri</i>				●																	●					
<i>Cedecea spp</i>				●																						
<i>Cellulomonas spp/Microbacterium spp</i>											●															
<i>Cellulomonas spp</i>											●															
<i>Cellulosimicrobium cellulans</i>											●															
<i>Chromobacterium violaceum</i>	●			●																						
<i>Chryseobacterium indologenes</i>	●	●		●																		●				
<i>Citrobacter amalonaticus/farmeri</i>				●																		●				
<i>Citrobacter amalonaticus</i>	●			●											●							●				
<i>Citrobacter braakii</i>	●	●													●							●				
<i>Citrobacter farmeri</i>	●	●	●												●							●				
<i>Citrobacter freundii</i>	●	●													●							●				
<i>Citrobacter freundii group</i>				●																						
<i>Citrobacter koseri/farmeri</i>	●																									
<i>Citrobacter koseri</i>	●			●											●							●				
<i>Citrobacter koseri/amalonaticus</i>	●	●																								
<i>Citrobacter sedlakii</i>																										
<i>Citrobacter youngae</i>	●														●							●				
<i>Clostridium acetobutylicum</i>																										●
<i>Clostridium baratii</i>											●															●
<i>Clostridium beijerinckii/butyricum</i>											●															●
<i>Clostridium beijerinckii</i>											●															●
<i>Clostridium bifementans</i>											●															●
<i>Clostridium botulinum</i>											●															●
<i>Clostridium botulinum/sporogenes</i>											●															●
<i>Clostridium butyricum</i>											●															●
<i>Clostridium cadaveris</i>											●															●
<i>Clostridium clostridioforme</i>											●															●
<i>Clostridium difficile</i>											●															●
<i>Clostridium fallax</i>											●															●
<i>Clostridium glycolicum</i>											●															●
<i>Clostridium histolyticum</i>											●															●
<i>Clostridium innocuum</i>											●															●
<i>Clostridium limosum</i>											●															●
<i>Clostridium paraputrificum</i>											●															●

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A	
<i>Clostridium perfringens</i>											●															●
<i>Clostridium ramosum</i>											●															●
<i>Clostridium septicum</i>											●															●
<i>Clostridium sordellii</i>											●															●
<i>Clostridium sporogenes</i>											●															●
<i>Clostridium subterminale</i>											●															●
<i>Clostridium tertium</i>											●															●
<i>Clostridium tetani</i>											●															●
<i>Clostridium tyrobutyricum</i>											●															●
<i>Clostridium spp</i>											●															●
<i>Collinsella aerofaciens</i>											●															
<i>Comamonas testosteroni/Pseudomonas alcaligenes</i>				●																						
<i>Comamonas testosteroni</i>				●																						
<i>Comamonas spp</i>																										●
<i>Corynebacterium accolens</i>																										
<i>Corynebacterium afermentans/coyleae</i>																										●
<i>Corynebacterium afermentans</i>																										●
<i>Corynebacterium amycolatum</i>																										●
<i>Corynebacterium argentoratense</i>																										●
<i>Corynebacterium auris</i>																										●
<i>Corynebacterium auris/Turicella otitidis</i>																										●
<i>Corynebacterium bovis</i>																										●
<i>Corynebacterium coyleae</i>																										●
<i>Corynebacterium cystitidis</i>																										●
<i>Corynebacterium diphtheriae biotype belfanti</i>																										●
<i>Corynebacterium diphtheriae biotype gravis</i>																										●
<i>Corynebacterium diphtheriae biotype intermedius</i>																										●
<i>Corynebacterium diphtheriae biotype mitis/belfanti</i>																										●
<i>Corynebacterium diphtheriae mitis</i>																										●
<i>Corynebacterium glucuronolyticum</i>																										●
<i>Corynebacterium group F-1</i>																										●
<i>Corynebacterium group G</i>																										●
<i>Corynebacterium jeikeium</i>																										●
<i>Corynebacterium kutscheri</i>																										●
<i>Corynebacterium macginleyi</i>																										●
<i>Corynebacterium minutissimum</i>																										●
<i>Corynebacterium pilosum</i>																										●
<i>Corynebacterium propinquum</i>																										●
<i>Corynebacterium pseudodiphtheriticum</i>																										●
<i>Corynebacterium pseudotuberculosis</i>																										●
<i>Corynebacterium renale</i>																										●
<i>Corynebacterium renale group</i>																										●
<i>Corynebacterium seminale (C.glucuronolyticum)</i>																										●
<i>Corynebacterium striatum/amycolatum</i>																										●
<i>Corynebacterium striatum</i>																										●
<i>Corynebacterium ulcerans</i>																										●
<i>Corynebacterium urealyticum</i>																										●
<i>Cronobacter dublinensis ssp dublinensis</i>	●																									●
<i>Cronobacter dublinensis ssp lactaridi</i>																										●
<i>Cronobacter dublinensis ssp lausannensis</i>	●																									●
<i>Cronobacter dublinensis</i>	●																									●



	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Cronobacter malonaticus</i>	●																			●	●				
<i>Cronobacter sakazakii</i>	●	●	●																	●	●				
<i>Cronobacter sakazakii</i> group	●																			●	●				
<i>Cronobacter turicensis</i>	●																			●	●				
<i>Cronobacter</i> spp	●														●							●			
<i>Cryptococcus albidus</i>									●							●				●					
<i>Cryptococcus curvatus</i>																				●					
<i>Cryptococcus humicola</i>									●											●					
<i>Cryptococcus laurentii</i>									●											●					
<i>Cryptococcus neoformans</i>								●	●											●					
<i>Cryptococcus terreus</i>								●	●											●					
<i>Cryptococcus uniguttulatus</i>								●	●											●					
<i>Cupriavidus pauculus</i>				●																					
<i>Delftia acidovorans</i>																									
<i>Demacoccus nishinomiyaensis</i>						●																●			
<i>Dermabacter hominis</i>											●														
<i>Dietzia</i> spp											●														
<i>Edwardsiella hoshinae</i>	●		●												●					●					
<i>Edwardsiella tarda</i>	●	●	●												●					●					
<i>Eggerthella lenta</i>										●															●
<i>Eikenella corrodens</i>	●			●																					
<i>Elizabethkingia meningoseptica</i>	●	●	●																	●		●			
<i>Empedobacter brevis</i>				●																					
<i>Enterobacter aerogenes</i>	●	●	●												●					●					
<i>Enterobacter amnigenus</i>	●	●																		●					
<i>Enterobacter asburiae</i>	●		●												●					●					
<i>Enterobacter cancerogenus</i>	●		●												●					●					
<i>Enterobacter cloacae</i>	●	●	●												●					●					
<i>Enterobacter gergoviae</i>	●		●												●					●					
<i>Enterobacter</i> spp/ <i>E.coli</i> / <i>Shigella sonnei</i>		●																							
<i>Enterococcus avium</i>								●																●	
<i>Enterococcus casseliflavus</i>								●																●	
<i>Enterococcus cecorum</i>																								●	
<i>Enterococcus durans</i>								●																●	
<i>Enterococcus faecalis</i>								●																●	
<i>Enterococcus faecium</i>								●																●	
<i>Enterococcus gallinarum</i>								●																●	
<i>Enterococcus hirae</i>																								●	
<i>Enterococcus saccharolyticus</i>																								●	
<i>Enterobacter</i> spp			●																						
<i>Erwinia</i> spp	●														●										
<i>Erysipelothrix rhusiopathiae</i>											●													●	
<i>Escherichia coli</i>	●	●	●												●					●					
<i>Escherichia fergusonii</i>	●		●												●					●					
<i>Escherichia hermannii</i>	●		●												●					●					
<i>Escherichia vulneris</i>	●	●	●												●					●					
<i>Eubacterium limosum</i>										●															●
<i>Ewingella americana</i>	●	●	●												●					●					
<i>Finnegoldia magna</i>										●															●
<i>Fusobacterium mortiferum</i>										●															●
<i>Fusobacterium necrophorum/nucleatum</i>										●															●

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A	
<i>Fusobacterium necrophorum ssp funduliforme</i>										●																
<i>Fusobacterium necrophorum ssp necrophorum</i>										●																
<i>Fusobacterium necrogenes</i>																										●
<i>Fusobacterium necrophorum</i>										●																●
<i>Fusobacterium nucleatum</i>										●																●
<i>Fusobacterium varium</i>										●																●
<i>Gardnerella vaginalis</i>								●	●			●												●		
<i>Geotrichum fermentans</i>									●																●	
<i>Geotrichum klebahnii</i>																										●
<i>Gardnerella vaginalis</i>							●				●												●			
<i>Gemella haemolysans</i>							●																●			
<i>Gemella morbillorum</i>							●			●													●			●
<i>Geobacillus stearothermophilus</i>																		●								
<i>Geobacillus thermoglucosidasius</i>																		●								
<i>Geotrichum spp</i>																									●	
<i>Globicatella sanguinis</i>							●																	●		
<i>Gordonia spp</i>											●															
<i>Granulicatella adiacens</i>							●																	●		
<i>Grimontia hollisae</i>	●		●	●																						
<i>Haemophilus influenzae</i>														●												
<i>Haemophilus influenzae biotype I</i>														●												
<i>Haemophilus influenzae biotype II</i>														●												
<i>Haemophilus influenzae biotype III</i>														●												
<i>Haemophilus influenzae biotype IV</i>														●												
<i>Haemophilus influenzae biotype V</i>														●												
<i>Haemophilus influenzae biotype VI</i>														●												
<i>Haemophilus influenzae biotype VII</i>														●												
<i>Haemophilus influenzae biotype VIII</i>														●												
<i>Haemophilus parainfluenzae</i>														●												
<i>Haemophilus parainfluenzae biotype I</i>														●												
<i>Haemophilus parainfluenzae biotype II</i>														●												
<i>Haemophilus parainfluenzae biotype III</i>														●												
<i>Haemophilus parainfluenzae biotype IV</i>														●												
<i>Haemophilus parainfluenzae biotype VI</i>														●												
<i>Haemophilus parainfluenzae biotype VII</i>														●												
<i>Haemophilus parainfluenzae biotype VIII</i>														●												
<i>Hafnia alvei</i>	●	●	●												●						●					
<i>Helicobacter cinaedi</i>												●														
<i>Helicobacter fennelliae</i>												●														
<i>Helicobacter pylori</i>												●														
<i>Histophilus somni</i>														●												
<i>Klebsiella oxytoca</i>	●	●	●												●						●					
<i>Klebsiella pneumoniae ssp ozaenae</i>	●	●	●												●						●					
<i>Klebsiella pneumoniae ssp pneumoniae</i>	●	●	●												●						●					
<i>Klebsiella pneumoniae ssp rhinoscleromatis</i>	●		●												●						●					
<i>Kloeckera apis/apiculata</i>																									●	
<i>Kloeckera apiculata</i>																									●	
<i>Kloeckera apis</i>																									●	
<i>Kloeckera japonica</i>																									●	
<i>Kloeckera spp</i>										●																
<i>Kluyvera ascorbata</i>	●		●												●						●					

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Kluyvera cryocrescens</i>	●		●												●				●						
<i>Kluyvera intermedia</i>																									
<i>Kluyvera spp</i>	●		●																						
<i>Kocuria varians/rosea</i>						●																			
<i>Kocuria kristinae</i>						●																●			
<i>Kocuria rosea</i>						●																●			
<i>Kocuria varians</i>						●																●			
<i>Kodamaea ohmeri</i>									●															●	
<i>Kytococcus sedentarius</i>						●																			
<i>Lachancea kluyveri</i>																								●	
<i>Lactobacillus acidophilus/jensenii</i>										●															
<i>Lactobacillus acidophilus</i>										●						●									●
<i>Lactobacillus brevis</i>																●									
<i>Lactobacillus buchneri</i>																●									
<i>Lactobacillus casei</i>																●									
<i>Lactobacillus collinoides</i>																●									
<i>Lactobacillus coprophilus (Wei.confusa)</i>																●									
<i>Lactobacillus crispatus</i>																●									
<i>Lactobacillus curvatus</i>																●									
<i>Lactobacillus delbrueckii ssp bulgaricus</i>																●									
<i>Lactobacillus delbrueckii ssp delbrueckii</i>																●									
<i>Lactobacillus delbrueckii ssp lactis</i>																●									
<i>Lactobacillus fermentum</i>																●									
<i>Lactobacillus fructivorans</i>																●									
<i>Lactobacillus helveticus</i>																●									
<i>Lactobacillus jensenii</i>										●						●									
<i>Lactobacillus lindneri</i>																●									
<i>Lactobacillus paracasei ssp paracasei</i>																●									
<i>Lactobacillus pentosus</i>																●									
<i>Lactobacillus plantarum</i>																●									
<i>Lactobacillus rhamnosus</i>																●									
<i>Lactobacillus salivarius</i>																●									
<i>Lactococcus garvieae</i>																							●		
<i>Lactococcus lactis ssp cremoris</i>							●									●							●		
<i>Lactococcus lactis ssp hordniae</i>																●									
<i>Lactococcus lactis ssp lactis</i>							●									●								●	
<i>Lactococcus raffinolactis</i>																●								●	
<i>Leclercia adecarboxylata</i>	●		●												●					●	●				
<i>Leifsonia aquatica</i>											●														●
<i>Leptotrichia buccalis</i>																●									●
<i>Leuconostoc citreum</i>																●									
<i>Leuconostoc lactis</i>																●									
<i>Leuconostoc mesenteroides ssp dextranicum</i>																●									
<i>Leuconostoc mesenteroides ssp mesenteroides/dextranicum</i>																●									
<i>Leuconostoc mesenteroides ssp cremoris</i>																●									
<i>Leuconostoc mesenteroides ssp mesenteroides</i>																●									
<i>Leuconostoc spp</i>							●																●		
<i>Lindnera satumus</i>																								●	
<i>Listeria grayi</i>											●		●										●		
<i>Listeria innocua</i>						●					●		●										●		

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A	
<i>Listeria ivanovii</i>						●					●		●											●		
<i>Listeria monocytogenes/innocua</i>						●					●		●											●		
<i>Listeria monocytogenes</i>						●					●		●											●		
<i>Listeria seeligeri</i>						●					●		●											●		
<i>Listeria welshimeri</i>						●					●		●											●		
<i>Listeria spp</i>						●					●													●		
<i>Lysinibacillus fusiformis</i>																	●									
<i>Lysinibacillus sphaericus</i>																	●									
<i>Moraxella (Branhamella) catarrhalis</i>														●												
<i>Moraxella lacunata</i>				●																●						
<i>Moraxella nonliquefaciens</i>				●																●						
<i>Moraxella osloensis</i>				●																●						
<i>Mannheimia haemolytica/Bibersteinia trehalosi</i>				●																●						
<i>Mannheimia haemolytica</i>				●																●						
<i>Methylobacterium mesophilicum</i>				●																						
<i>Micrococcus luteus</i>						●																	●			
<i>Micrococcus lylae</i>						●																	●			
<i>Microbacterium spp</i>																										
<i>Micrococcus spp</i>											●															
<i>Millerozyma farinosa</i>																									●	
<i>Mobiluncus curtisii</i>																										●
<i>Mobiluncus mulieris</i>																										●
<i>Mobiluncus spp</i>																										●
<i>Moellerella wisconsinensis</i>	●		●												●					●		●				
<i>Moraxella spp</i>	●		●												●					●		●				
<i>Morganella morganii ssp morganii</i>															●					●		●				
<i>Morganella morganii ssp sibirica</i>															●					●		●				
<i>Morganella morganii</i>	●	●	●												●					●		●				
<i>Myroides spp/Chryseobacterium indologenes</i>	●																			●						
<i>Myroides spp</i>	●			●																●						
<i>Neisseria animaloris/zoodegmatidis</i>				●																						
<i>Neisseria cinerea</i>														●												
<i>Neisseria gonorrhoeae</i>														●												
<i>Neisseria lactamica</i>														●												
<i>Neisseria meningitidis</i>														●												
<i>Neisseria mucosa</i>														●												
<i>Neisseria polysaccharea</i>														●												
<i>Neisseria sicca</i>														●												
<i>Neisseria subflava</i>														●												
<i>Neisseria spp</i>														●												
<i>Nocardia spp</i>											●															
<i>Non-fermenter spp</i>	●																									
<i>Ochrobactrum anthropi</i>	●																			●						
<i>Oerskovia turbata</i>				●							●															
<i>Oligella ureolytica</i>				●																						
<i>Oligella urethralis</i>				●																						
<i>Paenibacillus alvei</i>																	●									
<i>Paenibacillus amylolyticus</i>																	●									
<i>Paenibacillus glucanolyticus</i>																	●									
<i>Paenibacillus lautus</i>																	●									
<i>Paenibacillus macerans</i>																	●									

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A	
<i>Paenibacillus pabuli</i>																	●									
<i>Paenibacillus polymyxa</i>																	●									
<i>Paenibacillus thiaminolyticus</i>																	●									
<i>Paenibacillus validus</i>																	●									
<i>Pantoea agglomerans</i>																	●									
<i>Pantoea dispersa</i>																	●									
<i>Pantoea spp</i>	●	●	●														●									
<i>Parabacteroides distasonis</i>										●																●
<i>Parabacteroides merdae</i>																										●
<i>Parvimonas micra</i>										●																●
<i>Pasteurella aerogenes</i>	●			●																						
<i>Pasteurella multocida</i>	●																									
<i>Pasteurella pneumotropica</i>	●																									
<i>Pasteurella pneumotropica/Mannheimia haemolytica</i>	●																									
<i>Pectobacterium atrosepticum</i>																										
<i>Pectobacterium betavasculorum</i>																										
<i>Pectobacterium carotovorum ssp carotovorum</i>																										
<i>Pectobacterium carotovorum</i>																										
<i>Pediococcus acidilactici</i>																	●									
<i>Pediococcus damnosus</i>																	●									
<i>Pediococcus pentosaceus</i>																	●									
<i>Pediococcus spp</i>																	●									
<i>Peptococcus niger</i>											●															
<i>Peptoniphilus asaccharolyticus</i>											●															●
<i>Peptoniphilus indolicus</i>											●															●
<i>Peptostreptococcus group</i>											●															
<i>Photobacterium damsela ssp damsela</i>																										
<i>Photobacterium damsela ssp piscicida</i>																										
<i>Photobacterium damsela</i>	●		●																							
<i>Plesiomonas shigelloides</i>	●	●	●																							
<i>Porphyromonas asaccharolytica</i>											●															●
<i>Porphyromonas endodontalis</i>																										●
<i>Porphyromonas gingivalis</i>																										●
<i>Prevotella bivia</i>											●															●
<i>Prevotella buccae</i>																										●
<i>Prevotella buccalis</i>																										●
<i>Prevotella denticola</i>																										●
<i>Prevotella disiens</i>											●															●
<i>Prevotella intermedia/disiens</i>											●															●
<i>Prevotella intermedia</i>											●															●
<i>Prevotella loescheii</i>																										●
<i>Prevotella melaninogenica/oralis</i>											●															●
<i>Prevotella melaninogenica</i>											●															●
<i>Prevotella oralis</i>											●															●
<i>Priceomyces carsonii</i>																										●
<i>Prototheca wickerhamii</i>										●																
<i>Propionibacterium acnes</i>											●	●														●
<i>Propionibacterium avidum</i>											●	●														●
<i>Propionibacterium granulosum</i>											●															●
<i>Propionibacterium propionicum/avidum</i>											●															●
<i>Propionibacterium propionicum</i>											●															●

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE			API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Proteus mirabilis</i>	●	●	●													●				●	●					
<i>Proteus penneri</i>	●	●	●													●				●	●					
<i>Proteus vulgaris</i> group	●	●	●													●				●	●					
<i>Providencia alcalifaciens/rustigianii</i>	●																									
<i>Providencia alcalifaciens</i>	●			●												●				●	●					
<i>Providencia rettgeri</i>	●	●	●													●				●	●					
<i>Providencia rustigianii</i>	●															●				●	●					
<i>Providencia stuartii</i>	●			●												●				●	●					
<i>Providencia stuartii/alcalifaciens</i>		●																								
<i>Pseudomonas aeruginosa/fluorescens/putida</i>		●																								
<i>Pseudomonas aeruginosa</i>	●			●																	●					
<i>Pseudomonas alcaligenes</i>				●																						
<i>Pseudomonas fluorescens/putida</i>	●																									
<i>Pseudomonas fluorescens</i>	●			●																	●					
<i>Pseudomonas luteola</i>				●																						
<i>Pseudomonas mendocina</i>				●																						
<i>Pseudomonas oleovorans</i>				●																						
<i>Pseudomonas oryzae/habitans</i>	●			●																						
<i>Pseudomonas putida</i>	●			●																	●					
<i>Pseudomonas stutzeri</i>				●																						
<i>Pseudomonas spp</i>		●																			●					
<i>Pseudomonas/Comamonas spp</i>																					●					
<i>Pseudomonas/Comamonas capillosus</i>																										●
<i>Peptostreptococcus anaerobius</i>												●														●
<i>Psychrobacter phenylpyruvicus</i>				●																						
<i>Rahnella aquatilis</i>	●		●													●				●	●					
<i>Ralstonia pickettii</i>			●																							
<i>Raoultella ornithinolytica</i>	●		●													●				●	●					
<i>Raoultella planticola</i>	●		●													●				●	●					
<i>Raoultella terrigena</i>	●		●													●				●	●					
<i>Rhodotorula glutinis</i>										●																●
<i>Rhodotorula minuta</i>										●																●
<i>Rhodotorula mucilaginosa</i>										●																●
<i>Rhodococcus equi</i>												●														
<i>Rhodococcus spp</i>												●														
<i>Rothia dentocariosa</i>												●														
<i>Rothia mucilaginosa</i>							●																●			
<i>Rhizobium radiobacter</i>				●																	●					
<i>Shewanella putrefaciens</i> group	●	●		●																	●					
<i>Saccharomyces cerevisiae</i>									●	●																●
<i>Salmonella enterica ssp arizonae</i>	●	●	●														●				●	●	●			
<i>Salmonella enterica ssp enterica</i>	●	●	●														●				●	●	●			
<i>Salmonella ser. Enteritidis</i>	●																									
<i>Salmonella ser. Gallinarum</i>	●	●	●													●										
<i>Salmonella ser. Paratyphi A</i>	●	●	●													●					●	●				
<i>Salmonella ser. Paratyphi B</i>	●																									
<i>Salmonella ser. Pullorum</i>	●	●	●													●					●	●				
<i>Salmonella ser. Typhi</i>	●	●	●													●					●	●	●			
<i>Salmonella ser. Typhimurium</i>	●															●					●					
<i>Salmonella spp</i>	●	●	●													●					●	●				
<i>Saprochaete capitata</i>									●	●																●

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A	
<i>Schwanniomyces etchellsii/Priceomyces carsonii</i>																										●
<i>Schwanniomyces etchellsii</i>																										●
<i>Schwanniomyces polymorphus</i>																										●
<i>Serratia ficaria</i>	●		●												●					●	●					
<i>Serratia fonticola</i>	●		●												●					●	●					
<i>Serratia grimesii</i>																					●					
<i>Serratia liquefaciens</i>	●	●	●												●					●	●					
<i>Serratia marcescens</i>	●	●	●												●					●	●					
<i>Serratia odorifera</i>	●	●	●												●					●	●					
<i>Serratia plymuthica</i>	●		●												●					●	●					
<i>Serratia proteamaculans</i>															●					●	●					
<i>Serratia proteamaculans</i>															●					●	●					
<i>Serratia rubidaea</i>	●		●												●					●	●					
<i>Shigella boydii</i>	●														●					●						
<i>Shigella dysenteriae</i>	●														●					●						
<i>Shigella flexneri</i>	●														●					●						
<i>Shigella sonnei</i>	●		●												●					●	●					
<i>Shigella spp</i>	●		●												●					●	●					
<i>Sphingobacterium multivorum</i>			●																	●						
<i>Sphingobacterium spiritivorum</i>			●																	●						
<i>Sphingomonas paucimobilis</i>			●																	●						
<i>Sporobolomyces salmonicolor</i>									●																	●
<i>Staphylococcus arlettae</i>																							●			
<i>Staphylococcus aureus</i>						●																	●			
<i>Staphylococcus auricularis</i>						●																	●			
<i>Staphylococcus capitis</i>						●																	●			
<i>Staphylococcus caprae</i>						●																	●			
<i>Staphylococcus carnosus</i>						●																	●			
<i>Staphylococcus chromogenes</i>						●																	●			
<i>Staphylococcus cohnii ssp cohnii</i>						●																	●			
<i>Staphylococcus cohnii ssp urealyticus</i>						●																	●			
<i>Staphylococcus epidermidis</i>						●																	●			
<i>Staphylococcus equorum</i>						●																	●			
<i>Staphylococcus gallinarum</i>						●																	●			
<i>Staphylococcus haemolyticus</i>						●																	●			
<i>Staphylococcus hominis</i>						●																	●			
<i>Staphylococcus hyicus</i>						●																	●			
<i>Staphylococcus intermedius</i>						●																	●			
<i>Staphylococcus kloosii</i>						●																	●			
<i>Staphylococcus lentus</i>						●																	●			
<i>Staphylococcus pseudintermedius</i>						●																	●			
<i>Staphylococcus saccharolyticus</i>						●				●													●			
<i>Staphylococcus saprophyticus</i>						●																	●			
<i>Staphylococcus schleiferi</i>						●																	●			
<i>Staphylococcus sciuri</i>						●																	●			
<i>Staphylococcus simulans</i>						●																	●			
<i>Staphylococcus warneri</i>						●																	●			
<i>Staphylococcus xylosus</i>						●																	●			
<i>Stenotrophomonas maltophilia</i>	●	●	●	●																	●					
<i>Streptococcus acidominimus</i>							●																	●		

- Species present in database
- Species identifiable with additional tests
- Changed taxon
- New species

	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE		API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Streptococcus agalactiae</i>						●																	●		
<i>Streptococcus alactolyticus</i>																							●		
<i>Streptococcus anginosus</i>						●																	●		
<i>Streptococcus bovis</i>																							●		
<i>Streptococcus canis</i>						●																	●		
<i>Streptococcus constellatus ssp constellatus</i>						●																	●		
<i>Streptococcus constellatus ssp pharyngis</i>						●																	●		
<i>Streptococcus constellatus</i>										●													●		●
<i>Streptococcus downei</i>																									●
<i>Streptococcus downei/sobrinus</i>																									●
<i>Streptococcus dysgalactiae ssp dysgalactiae</i>						●																			●
<i>Streptococcus dysgalactiae ssp equisimilis</i>						●																			●
<i>Streptococcus equi ssp equi</i>						●																			●
<i>Streptococcus equi ssp zooepidemicus</i>						●																			●
<i>Streptococcus equinus</i>						●																			●
<i>Streptococcus gallolyticus ssp gallolyticus</i>						●																			●
<i>Streptococcus gallolyticus ssp pasteurianus</i>						●																			●
<i>Streptococcus gordonii</i>						●																			●
<i>Streptococcus group L</i>						●																			●
<i>Streptococcus infantarius ssp coli (Str.lutetiensis)</i>						●																			●
<i>Streptococcus infantarius ssp infantarius</i>						●																			●
<i>Streptococcus intermedius</i>						●				●														●	
<i>Streptococcus mitis</i>						●																●			
<i>Streptococcus mutans</i>						●																●			
<i>Streptococcus oralis</i>						●																●			
<i>Streptococcus parasanguinis</i>						●																	●		
<i>Streptococcus pluranimalium</i>						●																	●		
<i>Streptococcus pneumoniae</i>						●																	●		
<i>Streptococcus porcinus</i>						●																	●		
<i>Streptococcus pyogenes</i>						●																	●		
<i>Streptococcus salivarius ssp salivarius</i>						●																	●		
<i>Streptococcus salivarius ssp thermophilus</i>						●									●								●		
<i>Streptococcus sanguinis</i>						●																	●		
<i>Streptococcus sobrinus</i>						●																	●		
<i>Streptococcus suis I</i>						●																	●		
<i>Streptococcus suis II</i>						●																	●		
<i>Streptococcus uberis</i>						●																	●		
<i>Streptococcus vestibularis</i>						●																	●		
<i>Tatumella ptyseos</i>																					●				
<i>Tetragenococcus halophilus</i>															●										●
<i>Trichosporon asahii</i>										●															●
<i>Trichosporon asteroides</i>																									●
<i>Trichosporon inkin</i>										●															●
<i>Trichosporon mucoides</i>										●															●
<i>Trichosporon ovoides</i>																									●
<i>Trichosporon spp</i>										●															●
<i>Trueperella bernardiae</i>											●														●
<i>Trueperella pyogenes</i>											●														●
<i>Turicella otitidis</i>											●														●
<i>Vibrio alginolyticus/parahaemolyticus</i>	●	●	●	●																					
<i>Vibrio alginolyticus</i>	●		●	●											●							●	●		



	API® 20 E	API® 10 S	Rapid 20 E™	API® 20 NE			API® Staph	API® 20 Strep	API® Candida	API® 20 C AUX	API® 20 A	API® Coryne	API® Campy	API® Listeria	API® NH	API® 50 CHE	API® 50 CHL	API® 50 CHB		ID 32 E	Rapid ID 32 E	ID 32 GN	ID 32 Staph	Rapid ID 32 Strep	ID 32 C	Rapid ID 32 A
<i>Vibrio cholerae</i>	●		●	●												●					●	●				
<i>Vibrio fluvialis</i>	●		●	●												●					●	●				
<i>Vibrio metschnikovii</i>	●			●												●					●	●				
<i>Vibrio mimicus</i>	●			●												●					●	●				
<i>Vibrio parahaemolyticus</i>	●			●												●					●	●				
<i>Vibrio vulnificus/cholerae</i>		●																								
<i>Vibrio vulnificus</i>	●			●												●					●	●				
<i>Veillonella parvula</i>											●															
<i>Veillonella spp</i>																										●
<i>Virgibacillus pantothenticus</i>																		●								
<i>Weeksella virosa</i>				●																		●				
<i>Weeksella virosa/Bergeyella zoohelcum</i>																						●				
<i>Weeksella virosa/Empedobacter brevis</i>				●																						
<i>Weissella confusa</i>																		●								
<i>Weissella viridescens</i>																	●									
<i>Yersinia aldovae</i>																●										
<i>Yersinia enterocolitica</i>	●	●	●													●					●	●				
<i>Yersinia frederiksenii/intermedia</i>	●															●					●	●				
<i>Yersinia frederiksenii</i>	●															●					●	●				
<i>Yersinia intermedia</i>	●															●					●	●				
<i>Yersinia kristensenii</i>	●															●					●	●				
<i>Yersinia pestis</i>	●		●													●					●	●				
<i>Yersinia pseudotuberculosis</i>	●	●	●													●					●	●				
<i>Yersinia ruckeri</i>	●															●					●	●				
<i>Zygosaccharomyces spp</i>																										●

# YEASTS NOMENCLATURE

Name in the database	Imperfect State	Perfect State	Other names
<i>Candida albicans</i>	<i>Candida albicans</i>		
<i>Candida boidinii</i>	<i>Candida boidinii</i>		
<i>Candida catenulata</i>	<i>Candida catenulata</i>		
<i>Candida ciferrii</i>	<i>Candida ciferrii</i>	<i>Trichomonascus ciferrii</i>	<i>Stephanoascus ciferrii</i>
<i>Candida colliculosa</i>	<i>Candida colliculosa</i>	<i>Torulaspota delbrueckii</i>	
<i>Candida dattila</i>	<i>Candida dattila</i>	<i>Lachancea thermotolerans</i>	<i>Kluyveromyces thermotolerans</i>
<i>Candida dubliniensis</i>	<i>Candida dubliniensis</i>		
<i>Candida famata</i>	<i>Candida famata</i>	<i>Debaryomyces hansenii</i>	
<i>Candida glabrata</i>	<i>Candida glabrata</i>		
<i>Candida globosa</i>	<i>Candida globosa</i>	<i>Citeromyces matritensis</i>	
<i>Candida guilliermondii</i>	<i>Candida guilliermondii</i>	<i>Meyerozyma guilliermondii</i>	
<i>Candida hellenica</i>	<i>Candida hellenica</i>	<i>Zygoascus meyeriae</i>	
<i>Candida holmii</i>	<i>Candida holmii</i>	<i>Kazachstania exigua</i>	<i>Saccharomyces exiguus</i>
<i>Candida inconspicua</i>	<i>Candida inconspicua</i>		
<i>Candida intermedia</i>	<i>Candida intermedia</i>		
<i>Candida kefir</i>	<i>Candida kefir</i>	<i>Kluyveromyces marxianus</i>	
<i>Candida krusei</i>	<i>Candida krusei</i>	<i>Pichia kudriavzevii</i>	
<i>Candida lambica</i>	<i>Candida lambica</i>	<i>Pichia fermentans</i>	
<i>Candida lipolytica</i>	<i>Candida lipolytica</i>	<i>Yarrowia lipolytica</i>	
<i>Candida lusitanae</i>	<i>Candida lusitanae</i>	<i>Clavispora lusitanae</i>	
<i>Candida magnoliae</i>	<i>Candida magnoliae</i>		
<i>Candida melibiosica</i>	<i>Candida melibiosica</i>		
<i>Candida membranifaciens</i>	<i>Candida membranifaciens</i>		
<i>Candida norvegensis</i>	<i>Candida norvegensis</i>	<i>Pichia norvegensis</i>	
<i>Candida norvegica</i>	<i>Candida norvegica</i>		
<i>Candida parapsilosis</i>	<i>Candida parapsilosis</i>		
<i>Candida pelliculosa</i>	<i>Candida pelliculosa</i>	<i>Wickerhamomyces anomalus</i>	
<i>Candida pulcherrima</i>	<i>Candida pulcherrima</i>	<i>Metschnikowia pulcherrima</i>	
<i>Candida rugosa</i>	<i>Candida rugosa</i>		
<i>Candida sake</i>	<i>Candida sake</i>		

Name in the database	Imperfect State	Perfect State	Other names
<i>Candida silvicola</i>	<i>Candida silvicola</i>	<i>Nakazawaea holstii</i>	
<i>Candida spherica</i>	<i>Candida spherica</i>	<i>Kluyveromyces lactis</i> var <i>lactis</i>	
<i>Candida thermophila</i>	<i>Candida thermophila</i>	<i>Ogataea polymorpha</i>	<i>Hansenula polymorpha</i> , <i>Pichia angusta</i>
<i>Candida tropicalis</i>	<i>Candida tropicalis</i>		
<i>Candida utilis</i>	<i>Candida utilis</i>	<i>Lindnera jadinii</i>	
<i>Candida valida</i>	<i>Candida valida</i>	<i>Pichia membranifaciens</i>	
<i>Candida zeylanoides</i>	<i>Candida zeylanoides</i>		
<i>Cryptococcus albidus</i>	<i>Cryptococcus albidus</i>		
<i>Cryptococcus curvatus</i>	<i>Cryptococcus curvatus</i>		
<i>Cryptococcus humicola</i>	<i>Cryptococcus humicola</i>		
<i>Cryptococcus laurentii</i>	<i>Cryptococcus laurentii</i>		
<i>Cryptococcus neoformans</i>	<i>Cryptococcus neoformans</i>	<i>Filobasidiella neoformans</i>	
<i>Cryptococcus terreus</i>	<i>Cryptococcus terreus</i>		
<i>Cryptococcus uniguttulatus</i>	<i>Cryptococcus uniguttulatus</i>	<i>Filobasidium uniguttulatus</i>	
<i>Geotrichum candidum</i>	<i>Geotrichum candidum</i>	<i>Galactomyces candidus</i>	
<i>Geotrichum fermentans</i>	<i>Geotrichum fermentans</i>		
<i>Geotrichum klebahnii</i>	<i>Geotrichum klebahnii</i>		
<i>Kloeckera apiculata</i>	<i>Kloeckera apiculata</i>	<i>Hanseniaspora uvarum</i>	
<i>Kloeckera apis</i>	<i>Kloeckera apis</i>	<i>Hanseniaspora guilliermondii</i>	
<i>Kloeckera japonica</i>	<i>Kloeckera japonica</i>	<i>Hanseniaspora valbyensis</i>	
<i>Kodamaea ohmeri</i>	<i>Kodamaea ohmeri</i>		
<i>Lachancea kluyverii</i>		<i>Lachancea kluyverii</i>	<i>Saccharomyces kluyveri</i>
<i>Lindnera saturnus</i>		<i>Lindnera saturnus</i>	
<i>Millerozyma farinosa</i>	<i>Millerozyma farinosa</i>		
<i>Priceomyces carsonii</i>		<i>Priceomyces carsonii</i>	<i>Pichia carsonii</i>
<i>Prototheca wickerhamii</i>	<i>Prototheca wickerhamii</i>		
<i>Rhodotorula glutinis</i>	<i>Rhodotorula glutinis</i>		
<i>Rhodotorula minuta</i>	<i>Rhodotorula minuta</i>		
<i>Rhodotorula mucilaginosa</i>	<i>Rhodotorula mucilaginosa</i>		
<i>Saccharomyces cerevisiae</i>		<i>Saccharomyces cerevisiae</i>	
<i>Saprochaete capitata</i>	<i>Saprochaete capitata</i>	<i>Magnusiomyces capitatus</i>	
<i>Schwanniomyces etchellsii</i>		<i>Schwanniomyces etchellsii</i>	<i>Pichia etchellsii</i>
<i>Schwanniomyces polymorphus</i>		<i>Schwanniomyces polymorphus</i>	<i>Debaryomyces polymorphus</i>
<i>Sporobolomyces salmonicolor</i>	<i>Sporobolomyces salmonicolor</i>	<i>Sporidiobolus salmonicolor</i>	
<i>Trichosporon asahii</i>	<i>Trichosporon asahii</i>		
<i>Trichosporon asteroides</i>	<i>Trichosporon asteroides</i>		
<i>Trichosporon inkin</i>	<i>Trichosporon inkin</i>		
<i>Trichosporon mucooides</i>	<i>Trichosporon mucooides</i>		
<i>Trichosporon ovoides</i>	<i>Trichosporon ovoides</i>		

# REAGENTS TO BE ORDERED

	API 20 E® (a)		Rapid 20E		API 10 S		API 20 NE		API Staph		API 20 Strep		API Coryne		API Listeria		API Candida		API 20 C AUX		API 20 A®		API Campy		API NH		API ZYM		API 50 CH		API 50 CHB/E		API 50 CH E (a)		API 50 CH 50 CHL				
	20100	20700	10100	20050	20500	20600	20900	10300	10500	20210	20300	20800	10400	25200	50300-50430	20100	50300-50410																						
<b>ADDITIONAL REAGENTS</b>																																							
Zn (2x10g)	X			X																																			
TDA (2x1 ampule)	1/8		1/4																																				
VP 1																																							
VP 2 (2x2 ampules)	1/8	1/8				1/8	1/8																																
NIT 1																																							
NIT 2 (2x2 ampules)	1/8		1/4	1/8	1/8		1/20																																
ZYM A (2x1 ampule)						1/8	1/8	1/20					1/20																										
ZYM B (2x1 ampule)						1/8	1/8	1/20																															
NIN (2 ampules)							1/4																																
BCP (1 ampule)																																							
EHR (1 ampule)																																							
XYL (2 ampules)																																							
James (2x1 ampule)	1/8	1/8	1/4	1/8																																			
FB (2x1 ampule)																																							
PYZ (2 ampules)																																							
<b>SUSPENSION MEDIUM</b>																																							
NaCl 0.85% Medium (5 ml)																																							
NaCl 0.85% Medium (3 ml)																																							
NaCl 0.85% Medium (2 ml)			1/4		1/4																																		
Suspension Medium (5 ml)	1/4			1/2																																			
Suspension Medium (2 ml)								1/4																															
<b>ADDITIONAL PRODUCTS</b>																																							
Oxidase Reagent	X	X	X	X																																			
API® OF Medium					X																																		
API® M Medium					X																																		
Paraffin oil	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rack of 12 ampules	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sterile PSlpettes (5ml)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Swabs						X	X			X					X	X																							
Mc Farland standard		X		X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

\*figures = recommended quantity of additional reagent(s) for each strip kit ordered  
(eg. TDA = 1/8 <-> 1/8 of kit ref. 70402 (2 TDA ampoules) is required to use one kit of ref. 20100 (25 API 20 E strips))

X = additional product required  
(a) : for the API 20 E strip, use the additional reagent kit ref. 20120 (7 ampoules)

# REAGENTS TO BE ORDERED

	ID 32 Staph 32500	ID 32 C 32200	ID 32 E 32400	Rapid ID 32 E 32700	Rapid ID 32 A 32300	Rapid ID 32 Strep 32600
<b>ADDITIONAL REAGENTS</b>						
VP A VP B (2x2 ampules)	1/8					1/8
NIT 1 NIT 2	1/8				1/8	
NIN						1/8
James			1/8	1/8	1/8	
FB	1/8				1/8	1/8

# SIMPLIFIED METHODOLOGIES

STRIPS	RÉF	MICRO ORGANISMS	SUSPENSION	MC FARLAND	TRANSFERT	MEDIUM	INCUBATION	ATMOSPHERE
API® 20 E	20100 20160	Enterobacteriaceae and other non-fastidious Gram negative bacilli	NaCl 0.85% Medium 5 ml ou Suspension Medium 5 ml	1 colony	NA	NA	37°C 18-24h/48h	Aerobic
RapiD 20 E	20701	Enterobacteriaceae	NaCl 0.85% Medium 2 ml	0.5 McF	NA	NA	37°C 4h	Aerobic
API® 10 S	10100	Enterobacteriaceae and other non-fastidious Gram negative bacilli	NaCl 0.85% Medium 5 ml ou Suspension Medium 5 ml	1 colony	NA	NA	37°C 18-24h	Aerobic
API® 20 NE	20050	Non-Enterobacteriaceae and non-fastidious Gram negative bacilli	NaCl 0.85% Medium 2 ml	0.5 McF	200 µL	API AUX	30°C 24-48h	Aerobic
API® Staph	20500	Genres Staphylococcus, Kocuria and Micrococcus	API Staph Medium	0.5 McF	NA	Medium	37°C 18-24h	Aerobic
API® 20 Strep	20600	Streptocoques	Suspension Medium 2 ml	4 McF	500 µl	NA	37°C 4h-24h	Aerobic
API® Coryne	20900	Bacteries coryneformes	Suspension Medium 3 ml	>6 McF	500 µl	Medium	37°C 24h	Aerobic
API® Listeria	10300	Listeria	Suspension Medium 2 ml	1 McF	NA	API GP	37°C 24h	Aerobic
API® Candida	10500	Yeasts	NaCl 0.85% Medium 2 ml	3 McF	NA	Medium	37°C 18-24h	Aerobic
API® 20 C AUX	20210	Yeasts	NaCl 0.85% Medium 2 ml Suspension Medium 2 ml	2 McF	100 µl	NA	30°C 48-72h	Aerobic
API® 20 A	20300	Anaerobes	API 20 A Medium	3 McF	NA	NA	37°C 24h	Anaerobic
API® Campy	20800	Campylobacter	NaCl 0.85 % Medium 3 ml	6 McF	150 µl	API C	37°C 24h	Aerobic/CO <sub>2</sub>
API® NH	10400	Neisseria – Haemophilus and Moraxella ( <i>Branhamella</i> ) catarrhalis	NaCl 0.85% Medium 2 ml	4 McF	NA	Medium	37°C 2h	Aerobic
API® ZYM	25200	Semi-quantitative enzyme activity tests	NaCl 0.85% Medium 2 ml ou Suspension Medium 2 ml	5 6 McF	NA	NA	37°C 4h	Aerobic
API® 50 CH	50300	Bacillus	NaCl 0.85% Medium 5 ml	2 McF	NA	API AUX	30°C 24-48h 55°C 3/6-24h	Aerobic
API® 50 CHB/E	50430		+ API 50 CHB/E Medium	2 McF				
API® 50 CH	50300	<i>Enterobacteriaceae</i>	NaCl 0.85% Medium 5 ml	0.5 McF	NA	Medium	37°C 24-48h	Aerobic
API® 50 CHB/E	50430		+ API 50 CHB/E Medium	0.5 McF				
API® 50 CH	50300	Lactobacillus	API 50 CHL Medium	2 McF	NA	NA	30/37°C 48h	Aerobic
API® 50 CHL	50410							

# SIMPLIFIED METHODOLOGIES

STRIPS	RÉF	BACTERIA	SUSPENSION INOCULATOR 3 ML MANUAL 2 ML	MC FARLAND	TRANSFERT	MEDIUM	VOLUME DISPENSED	TEMP. INCUBATION	ATMOSPHERE
Rapid ID 32 E	32700	Enterobacteriaceae	NaCl 0.85% Medium	0.5	NA	NA	55 µl x 32	37°C 4h	Aerobic
Rapid ID 32 A	20701	Enterobacteriaceae	Suspension Medium	0.5 McF	NA	NA	55 µl x 32	37°C 4h	Aerobic
ID 32 E	10100	Streptococci	Suspension Medium	1 colonie	NA	NA	55 µl x 32	37°C 4h	Aerobic
ID 32 STAPH	20050	Enterobacteriaceae Non Enterobacteriaceae	NaCl 0.85% Medium	0.5 McF	NA	NA	55 µl x 32	37°C 24h	Aerobic + humidity
API® Staph	20500	Staphylococci	Suspension Medium	0.5 McF	NA	NA	55 µl x 32	37°C 24h	Aerobic + humidity
ID 32 C	20600	Yeasts	Suspension Medium	4 McF	250 µl	API C Medium	135 µl x 32	30°C 24/48h	Aerobic + humidity

# BIBLIOGRAPHY

## 1 • *Elizabethkingia meningoseptica*

KIM (K.K.), KIM (M.K.), LIM (J.H.), PARK (H.Y.) and LEE (S.T.): Transfer of *Chryseobacterium meningosepticum* and *Chryseobacterium miricola* to *Elizabethkingia* gen. nov. as *Elizabethkingia meningoseptica* comb. nov. and *Elizabethkingia miricola* comb. nov. Int. J. Syst. Evol. Microbiol., 2005, 55, 1287-1293.

## 2 • *Kluyvera intermedia*

PAVAN (M.E.), FRANCO (R.J.), RODRIGUEZ (J.M.), GADALETA (P.), ABBOTT (S.L.), JANDA (J.M.) and ZORZÓPULOS (J.): Phylogenetic relationships of the genus *Kluyvera*: transfer of *Enterobacter intermedius* Izard et al. 1980 to the genus *Kluyvera* as *Kluyvera intermedia* comb. nov. and reclassification of *Kluyvera cochleae* as a later synonym of *K. intermedia*. Int. J. Syst. Evol. Microbiol., 2005, 55, 437-442.

## 3 • *Salmonella* spp

TINDALL (B.J.), GRIMONT (P.A.D.), GARRITY (G.M.) and EUZÉBY (J.P.): Nomenclature and taxonomy of the genus *Salmonella*. Int. J. Syst. Evol. Microbiol., 2005, 55, 521-524.

## 4 • *Bibersteinia trehalosi*

BLACKALL (P.J.), BOJESSEN (A.M.), CHRISTENSEN (H.) and BISGAARD (M.): Reclassification of [*Pasteurella*] *trehalosi* as *Bibersteinia trehalosi* gen. nov., comb. nov. Int. J. Syst. Evol. Microbiol., 2007, 57, 666-674.

## 5 • *Cronobacter* spp

IVERSEN (C.), MULLANE (N.), McCARDLE (B.), TALL (B.D.), LEHNER (A.), FANNING (S.), STEPHAN (R.) and JOOSTEN (H.): *Cronobacter* gen. nov., a new genus to accommodate the biogroups of *Enterobacter sakazakii*, and proposal of *Cronobacter sakazakii* gen. nov., comb. nov., *Cronobacter malonaticus* sp. nov., *Cronobacter turicensis* sp. nov., *Cronobacter muytjensii* sp. nov., *Cronobacter dublinensis* sp. nov., *Cronobacter genomospecies 1*, and of three subspecies, *Cronobacter dublinensis* subsp. *dublinensis* subsp. nov., *Cronobacter dublinensis* subsp. *lausannensis* subsp. nov. and *Cronobacter dublinensis* subsp. *lactaridi* subsp. nov. Int. J. Syst. Evol. Microbiol., 2008, 58, 1442-1447.

## 6 • *Streptococcus salivarius* ssp *salivarius*

HOWEY (R.T.), LOCK (C.M.) and MOORE (L.V.H.): Subspecies names automatically created by Rule 46. Int. J. Syst. Bacteriol., 1990, 40, 317-319.

## 7 • *Streptococcus salivarius* ssp *thermophilus*

VALIDATION LIST N° 54. Int. J. Syst. Bacteriol., 1995, 45, 619-620. [SCHLEIFER (K.H.), EHRMANN (M.), KRUSCH (U.) and NEVE (H.): Revival of the species *Streptococcus thermophilus* (ex *Orla-Jensen*, 1919) nom. rev. Syst. Appl. Microbiol., 1991, 14, 386-388.]

Note: The Validation List N° 54 [1] encompasses the following citation: «Name: *Streptococcus thermophilus* (basonym: *Streptococcus salivarius* subsp. *thermophilus*) - Proposed as: Revived name - Authors: Schleifer et al. 1991 [2] - Nomenclatural type: ATCC 19258 (= NCDO 573)». However, *Streptococcus thermophilus* cannot be a revived name because it appeared in the Approved Lists (1980). Obviously, *Streptococcus thermophilus* nom. rev. (sic) is erroneously cited in the Validation List N° 54.

## 8 • *Streptococcus bovis*

*Streptococcus gallolyticus* ssp *gallolyticus* *Streptococcus gallolyticus* ssp *pasteurianus* *Streptococcus infantarius* ssp *coli* *Streptococcus infantarius* ssp *infantarius* SCHLEGEL (L.), GRIMONT (F.), COLLINS (M.D.), RÉGNAULT (B.), GRIMONT (P.A.D.) and BOUVET (A.): *Streptococcus infantarius* sp. nov., *Streptococcus infantarius* subsp. *infantarius* subsp. nov. and *Streptococcus infantarius* subsp. *coli* subsp. nov., isolated from humans and

food. Int. J. Syst. Evol. Microbiol., 2000, 50, 1425-1434. ASSOCIATE EDITOR, IJSB: Notification that new names and new combinations have appeared in volume 50, part 4, of the IJSEM. Int. J. Syst. Evol. Microbiol., 2000, 50, 1701-1702.

POYART (C.), QUESNE (G.) and TRIEU-CUOT (P.): Taxonomic dissection of the *Streptococcus bovis* group by analysis of manganese-dependent superoxide dismutase gene (*sodA*) sequences: reclassification of '*Streptococcus infantarius* subsp. *coli*' as *Streptococcus lutetiensis* sp. nov. and of *Streptococcus bovis* biotype II.2 as *Streptococcus pasteurianus* sp. nov. Int. J. Syst. Evol. Microbiol., 2002, 52, 1247-1255.

SCHLEGEL (L.), GRIMONT (F.), AGERON (E.), GRIMONT (P.A.D.) and BOUVET (A.): Reappraisal of the taxonomy of the *Streptococcus bovis*/*Streptococcus equinus* complex and related species: description of *Streptococcus gallolyticus* subsp. *gallolyticus* subsp. nov., *S. gallolyticus* subsp. *macedonicus* subsp. nov. and *S. gallolyticus* subsp. *pasteurianus* subsp. nov. Int. J. Syst. Evol. Microbiol., 2003, 53, 631-645.

9 • **Freydiere AM.** : Yeast identification in the clinical microbiology laboratory: phenotypical methods. Medical Mycology, 2001, Vol39, (1), p9-33

10 • **Budak A.** : Epidemiology of *Candida* infection. II. Application of biochemical methods for typing of *Candida albicans* strains.

Arch Immunol Ther Exp (Warsz).1990, Vol 38, (5-6), p369-77

11 • **C.P.Kurtzman** : The Yeast , a taxonomic study. 5ème Edition

12 • **Saprochaete capitata** : Book : The Yeasts, Fifth Edition: A Taxonomic Study by C.P. Kurtzman, J.W. Fell

## 13 • *Parabacteroides distasonis*

SAKAMOTO (M): Reclassification of *Bacteroides distasonis*, *Bacteroides goldsteinii* and *Bacteroides merdae* as *Parabacteroides distasonis* gen. nov., comb. Nov., *Parabacteroides goldsteinii* comb. Nov. and *Parabacteroides merdae* comb. nov. - International Journal of Systematic and Evolutionary Microbiology, 2006,56,1599-1605

## 14 • *Campylobacter ureolyticus*

VANDAMME (P) : Reclassification of *Bacteroides ureolyticus* as *Campylobacter ureolyticus* comb. nov. and emended description of the genus *Campylobacter* - International Journal of Systematic and Evolutionary Microbiology, 2010,60,2016-2022

## 15 • *Parvimonas micra*

TINDALL (B.J.) and EUZÉBY (J.P.): Proposal of *Parvimonas* gen. nov. and *Quatronicoccus* gen. nov. as replacements for the illegitimate, prokaryotic, generic names *Micromonas* Murdoch and Shah 2000 and *Quadricoccus* Maszenan et al. 2002, respectively. Int. J. Syst. Evol. Microbiol., 2006, 56, 2711-2713.

## 16 • *Propionibacterium propionicum*

MOORE (W.E.C.) and MOORE (L.V.H.): Index of the bacterial and yeast nomenclatural changes published in the International Journal of Systematic Bacteriology since the 1980 Approved Lists of bacterial names (1 January 1980 to 1 January 1992). American Society for Microbiology, Washington, D.C., 1992.

17 • **Capnocytophaga species: FRANDSEN (EVG):** Diversity of *Capnocytophaga* species in children and description of *Capnocytophaga leadbetteri* sp. Nov. and *Capnocytophaga* genospecies AHN8471 - International Journal of Systematic and Evolutionary Microbiology, 2008,58,324-336. GILLIGAN (PH): *Capnocytophaga ochracea* Septicemia - Journal of Clinical Microbiology, 1981,13,4,643-645. WINN (RE): Septic arthritis involving *Capnocytophaga*



ochracea - Journal of Clinical Microbiology, 1984,19,4,538-540. HAWKEY (PM): Capnocytophaga ochracea infection: two cases and a review of the published work - Journal Clin Pathol, 1984,37,1066-1070. TANNER (ACR): API® ZYM and API® an-ident reactions of fastidious oral gram-negative species - Journal of Clinical Microbiology, 1985,22,3,333-335. RUMMENS (JL): Isolation of Capnocytophaga species with a new selective medium- Journal of Clinical Microbiology, 1985,22,3,375-378. BUU-HOI (AY): Endocarditis caused by Capnocytophaga ochracea - Journal of Clinical Microbiology, 1988,26,5,1061-1062. YAMAMOTO (T): Capnocytophaga haemolytic asp. Nov. and Capnocytophaga granulosa sp. Nov., from human dental plaque - International Journal of Systematic Bacteriology, 1994,44,2,324-329.

**18 • YASSIN (A.F.), HUPFER (H.), SIERING (C.) and SCHUMANN (P.):** Comparative chemotaxonomic and phylogenetic studies on the genus Arcanobacterium Collins et al. 1982 emend. Lehnen et al. 2006: proposal for Trueperella gen. nov. and emended description of the genus Arcanobacterium. Int. J. Syst. Evol. Microbiol., 2011, 61, 1265-1274.

**19 • Campylobacter sputorum**  
ON (S.L.W.), ATABAY (H.I.), CORRY (J.E.L.), HARRINGTON (C.S.) and VANDAMME (P.): Emended description of Campylobacter sputorum and revision of its infrasubspecific (biovar) divisions, including C. sputorum biovar paraureolyticus, a urease-producing variant from cattle and humans. Int. J. Syst. Bacteriol., 1998, 48, 195-206. VANDAMME (P.) and ON (S.L.W.): Recommendations of the Subcommittee on the taxonomy of Campylobacter and related bacteria. Int. J. Syst. Evol. Microbiol. 2001, 51, 719-721.

**20 • Avibacterium paragallinarum**  
BLACKALL (PJ): Reclassification of Pasteurella gallinarum, [Haemophilus] paragallinarum, Pasteurella avium and Pasteurella volantium as Avibacterium gallinarum gen. nov., comb. nov., Avibacterium paragallinarum comb. nov., Avibacterium avium comb. nov. and Avibacterium volantium comb. nov.- International Journal of Systematic and Evolutionary Microbiology, 2005,55,353-62

**21 • Aggregatibacter actinomycetemcomitans, Aggregatibacter aphrophilus**  
NORSKOV-LAURITSEN (N): Reclassification of Actinobacillus actinomycetemcomitans, Haemophilus aphrophilus, Haemophilus paraphrophilus and Haemophilus segnis as Aggregatibacter actinomycetemcomitans gen. nov., comb. nov., Aggregatibacter aphrophilus comb. nov. and Aggregatibacter segnis comb. nov., and emended description of Aggregatibacter aphrophilus to include V factor-dependent and V factor-independent isolates - International Journal of Systematic and Evolutionary Microbiology, 2006,56,2135-46.

**22 • Lysinibacillus fusiformis and Lysinibacillus sphaericus**  
AHMED (I), YOKOTA (A) : Proposal of Lysinibacillus boronitolerans gen. nov. sp. nov., and transfer of Bacillus fusiformis to Lysinibacillus fusiformis comb. nov. and Bacillus sphaericus to Lysinibacillus sphaericus comb. nov. Int J Syst Evol Microbiol. 2007 May;57(Pt 5):1117-25.

**23 • Streptococcus salivarius**  
FARROW (JA), COLLINS (MD) : DNA base composition, DNA-DNA homology and long-chain fatty acid studies on streptococcus thermophilus and Streptococcus salivarius. J Gen Microbiol. 1984 Feb;130(2):357-62.

**24 • Lactobacillus curvatus**  
TORRIANI (S), VAN REENEN (CA), KLEIN (G) : Lactobacillus curvatus subsp. curvatus subsp. nov. and Lactobacillus curvatus subsp. melibiosus subsp. nov. and Lactobacillus sake subsp. sake subsp. nov. and Lactobacillus sake subsp. carnosus subsp. nov., New Subspecies of Lactobacillus curvatus Abo-Elnaga and Kandler 1965 and Lactobacillus sake Katagiri, Kitahara, and Fukami 1934 (Klein et al. 1996, Emended Descriptions), Respectively. Int. J. Syst. Evol. Microbiol., 1996, 46, 4, 1158-1163

**25 • Pectobacterium species :**  
GARDAN (L) : Elevation of three subspecies of Pectobacterium carotovorum to species level: Pectobacterium atrosepticum sp. nov., Pectobacterium betavasculorum sp. nov. and Pectobacterium wasabiae sp. nov.- International Journal of Systematic and Evolutionary Microbiology, 2003, 53, p381-39.

**26 • SPROER (C) :**  
The phylogenetic position of Serratia, Buttiauxella and some other genera of the family Entero-

bacteriaceae - International Journal of Systematic Bacteriology, 1999, 49, p1433-1438 HAUBEN (L) : Phylogenetic position of Phytopathogens within the Enterobacteriaceae System. Appl. Microbiol., 1998, 21, p384-397 MERGAERT (J) : Reclassification of non-pigmented Erwinia herbicola strains from trees as Erwinia billingiae sp. nov. - International Journal of Systematic Bacteriology, 1999, 49, p377- 383

**27 • Staphylococcus pseudintermedius :**  
VAN HOOVELS (L): The first case of Staphylococcus pseudintermedius in humans isolated from an ICD lead - ESCMID, Nice, 2006,P1698 DEVRIESE (LA): Staphylococcus pseudintermedius sp. Nov., a coagulase-positive species from animals - IJSEM, 2005,55,1569-1573. SASAKI (T): Reclassification of phenotypically identified Staphylococcus intermedius strains - JCM, 2007,45,2770-2778. HAJEK (V): Staphylococcus intermedius, a new species isolated from animals - USB, 1976,26,401-408

**28 • Prototheca wickerhamii :**  
PADHYE (A): Rapid identification of Prototheca species by API® 20C - Journal of Clinical Microbiology, 1979,10,4,579-582.  
McMULLAN (B): Prototheca wickerhamii mimicking yeast: a cautionary tale - Journal of Clinical Microbiology, 2011,49,8,3078-3081.

**29 • Parabacteroides distasonis et Parabacteroides merdae**  
SAKAMOTO (M): Reclassification of Bacteroides distasonis, Bacteroides goldsteinii and Bacteroides merdae as Parabacteroides distasonis gen. nov., comb. Nov., Parabacteroides goldsteinii comb. Nov. and Parabacteroides merdae comb; nov. - International Journal of Systematic and Evolutionary Microbiology, 2006,56,1599-1605

**30 • Propionibacterium propionicum**  
MOORE (W.E.C) and MOORE (L.V.H): Index of the bacterial and yeast nomenclatural changes published in the International Journal of Systematic Bacteriology since the 1980 Approved Lists of bacterial names (1 January 1980 to 1 January 1992). American Society for Microbiology, Washington, D.C., 1992

**31 • Pseudoflavonifractor capillosus**  
CARLIER (J.P), BEDORA-FAURE (M), K'OUAS (G.), ALAUZET (C.) and MORY (F): Proposal to unify Clostridium orbiscindens Winter et al. 1991 and Eubacterium plautii (Seguin 1928) Hofstad and Aasjord 1982, with description of Flavonifractor plautii gen. nov., comb. nov. and reassignment of Bacteroides capillosus to Pseudoflavonifractor capillosus gen. nov., comb. nov. Int. J. Syst. Evol. Microbiol., 2010, 60, 585-590.

**32 • LENNETTE E.H., BALOWS A., HAUSLER (JR) W. J., SHADOMY H.J.** Manual of Clinical Microbiology Fifth Edition (1991) Amer. Soc. Microbiol., Washington, D. C.  
2. BARNETT J.H., PAYNE R. W., YARROW D. Yeasts: Characteristics and Identification (First edition 1983 , Second 1990 , Third 2000) Cambridge University Press - London

**33 • BARRETT T. J., PATTON C.M., MORRIS G.K**  
Differentiation of Campylobacter species Using Phenotypic Characterization (1988) Laboratory Medicine, 19, 96-102

**34 • BOUVET P.J.M., GRIMONT P.A.D.** Taxonomy of the Genus Acinetobacter with the Recognition of Acinetobacter baumannii sp. Nov., Acinetobacter haemophilus sp. Nov., Acinetobacter johnsonii sp.nov., and Acinetobacter junii sp. Nov. And Amended Descriptions of Acinetobacter calcoaceticus and Acinetobacter lwoffii (1986) Int. J. Syst. Bacteriol., 36, 228-240

**35 • FARMER J.J. III, DAVIS B.R., HICKMAN-BRENNER F.W., McWHORTER A., HUNTLEY-CARTER G.P., ASBURY M.A., WATHEN-GRADY H.G., ELIAS C., FANNING G.R., STEIGERWALT A.G., O'HARA C.M., MORRIS G.K., SMITH P.B., DON BRENNER J.** Biochemical Identification of New Species and Biogroups of Enterobacteriaceae Isolated from Clinical Specimens (1985) J. Clin. Microbiol., 21, 46-76

**36 • GILARDI G.L.**  
Identification of Glucose Nonfermenting Gram Negative Rods (1989) - Document Interne 7.HOLDEMAN L.V., CATO E.P., MODRE W.E.C.  
Anaerobe Laboratory Manual 4th Edition (1977) Virginia Polytechnic Institute and State University - Virginia - USA

- 37 • HOLLIS D.G., WEAVER R.E.  
Gram Positive organisms: a guide to identification  
Atlanta Special Bacteriology Section(1984) Center for Disease Control
- 38 • HOLMES B., PINNING C.A., DAWSON C.A.  
A Probability Matrix for the Identification of Gram-negative, Aerobic, Non-fermentative Bacteria that Grow on Nutrient agar (1986) J. Gen. Microbiol., 132, 1827-1842
- 39 • HOLMES B., PINNING C.A., DAWSON C.A.  
A Revised Probability Matrix for the Identification of Gram-negative, Aerobic Rod-shaped, Fermentative Bacteria (1986) J. Gen. Microbiol., 132, 3113-3135
- 40 • KILIAN M., MIKKELSEN L., HENRICHSEN J.  
Taxonomic Study of Viridans Streptococci: Description of *Streptococcus gordonii* sp. Nov. and Emended Descriptions of *Streptococcus sanguis* (White and Niven (1946)), *Streptococcus oralis* (Bridge and Sneath 1982), and *Streptococcus mitis* (Andrews and Horder 1906).(1986) Int. J. Bacteriol., 39, 471-484
- 41 • KRIEG N.R., HOLT J.G.  
Bergey's Manual of Systematic Bacteriology Ninth Edition - Volume 1 (1984) Williams & Wilkins Co., Baltimore, Md
- 42 • MEGRAUD F., CHEVRIER D., DESPLACES N., SEDALLIAN A., GUESDON J.L.  
Urease-Positive Thermophilic Campylobacter Isolated from an Appendix and from Human Feces. (1988) J. Clin. Microbiol., 26, 1050-1051
- 43 • MOORE L.V.H., MOORE W.E.C.  
Anaerobe Lab Manual Update (1991) Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA
- 44 • PELOUX Y, CANIAUX I.  
Identification des corynebacteries et germes apparentés. Apport d'une nouvelle galerie d'identification : API® Coryne (1990) Feuilles de Biologie, XXXI, 27-34
- 45 • RICHARD C.  
Nouvelles Espèces de Enterobacteriaceae (1984) Bull. Institut Pasteur, 82, 255-277
- 46 • SCHLEIFER K.H., KRAUS J., DVORAK C., KILPER-BAELTZ R., COLLINS M.D. Transfer of *Streptococcus lactis* and Related Streptococci to the Genus *Lactococcus* gen. Nov. (1985) System. Appl. Microbiol., 6, 183-195
- 47 • SKINNER F.A., QUESNEL L.B.  
Streptococci (1978) Soc. Appl. Bacteriol. Symposium Série N° 7 - Academic Press
- 48 • SNEATH P.H.A., MAIR N.S., SHARPE M.E., HOLT J.G.  
Bergey's Manual of Systematic Bacteriology Ninth Edition - Volume 2 (1986) Williams & Wilkins Co., Baltimore, Md
- 49 • STEELE T. W., OWEN R.J.  
Campylobacter jejuni subsp. doylei subsp. nov., a Subspecies of Nitrate-Negative Campylobacters Isolated from Human Clinical Specimens (1988) Int. J. Syst. Bacteriol., 38, 316-318
- 50 • KREGER VAN RIJ N. J. W.  
«The Yeasts - A Taxonomic Study.» Livre Ed. ELSEVIER (1984)
- 51 • COYLE M.B., NOWOWIEJSKI D.J., RUSSEL J.Q., GROMAN N.B.  
«Laboratory review of reference strains of *Corynebacterium diphtheriae* indicates mistyped intermedium strains.» (1993) J. Clin. Microbiol. 31, 11, 3060-3062.
- 52 • FUNKE G, LAWSON P.A, COLLINS M.D.  
«Heterogeneity within human-derived centers for disease control and prevention (CDC) Coryneform group ANF- 1 - like bacteria and description of *Corynebacterium auris* sp. nov.» (1981) Int. J. Syst. Bact. 45, 4, 735-739.
- 53 • RIEGEL P., RUIMY R., DE BRIEL D., PREVOST G., JEHL F., CHRISTEN R., MONTEIL H.  
«*Corynebacterium seminale* sp. nov., a new species of Coryneform organism associated with genital infection in male patients.» (1995) J. Clin. Microbiol. 33, 2244-2249.
- 54 • RIEGEL P., DE BRIEL D., PREVOST G., JEHL F., MONTEIL H., MINCK R. «Taxonomic Study of *Corynebacterium* group ANF-1 strains : Proposal of *Corynebacterium afermentans* sp. nov. containing the Subspecies *Corynebacterium afermentans* subsp. *afermentans* subsp. nov. and *Corynebacterium afermentans* subsp. *lipophilum* subsp. nov.» (1993) Int. J. Syst. Bact. Vol.43, N°2, 287-292.
- 55 • RIEGEL P., DE BRIEL D., PREVOST G., JEHL F., MONTIEL H.  
«Proposal of *Corynebacterium propinquum* sp. nov. for *Corynebacterium* group ANF-3 strains.» (1993) FEMS Microbiology Letters Vol. 113
- 56 • MURRAY P.R., BARON E.J., PFALLER M.A., TENOVER F.C., YOLKEN R.H. «Manual of clinical microbiology». (Sixth edition 1995 , 7th 1999 , 8th 2003 Livre Ed. ASM PRESS.)
- 57 • RENAUD F.N.R., DUTAUR M., DAOU D., AUBEL D., RIEGEL P., MONGET D., FRENEY J., Differentiation Of *Corynebacterium amycolatum*, *C. minutissimum* , and *C. striatum* by carbon assimilation tests. (1998) J.Clin.Microbiol., 36, 3698-370<Bibliographie>2.
- 58 • FUNKE G., VON GRAEVENITZ A., CLARRIDGE J.E., BERNARD K.A. «Clinical microbiology of Coryneform bacteria». (1997) Clinical microbiology reviews Vol10, 1, 125-159.
- 59 • DAOU S E  
«Apport des tests auxanotrophiques dans l'identification de quatre espèces de Corynebacteries.» (1996) Diplome d'études approfondies de Génie Biologique et Médical.
- 60 • R. A. WHILEY, H. Y. FRASER, C. W. I. DOUGLAS, J. M. HARDIE, A. M. WILLIAMS, and M. D. COLLINS  
*Streptococcus parasanguis* sp. nov., an atypical viridans *Streptococcus* from human clinical specimens. FEMS Microbiology Letters 68 (1990) p. 115-121
- 61 • SHINJO (T.), FUJISAWA (T.) and MITSUOKA (T.): Proposal of two subspecies of *Fusobacterium necrophorum* (Flügge) Moore and Holdeman: *Fusobacterium necrophorum* subsp. *necrophorum* subsp. nov., nom. rev. (ex Flügge 1886), and *Fusobacterium necrophorum* subsp. *funduliforme* subsp. nov., nom. rev. (ex Hallé 1898). Int. J. Syst. Bacteriol., 1991, 41, 395-397
- 62 • SCHLEGEL (L.), GRIMONT (F.), AGERON (E.), GRIMONT (P.A.D.) and BOUVET (A.): Reappraisal of the taxonomy of the *Streptococcus bovis*/*Streptococcus equinus* complex and related species: description of *Streptococcus gallolyticus* subsp. *gallolyticus* subsp. nov., *S. gallolyticus* subsp. *macedonicus* subsp. nov. and *S. gallolyticus* subsp. *pasteurianus* subsp. nov. Int. J. Syst. Evol. Microbiol., 2003, 53, 631-645.
- 63 • POYART (C.), QUESNE (G.) and TRIEU-CUOT (P.): Taxonomic dissection of the *Streptococcus bovis* group by analysis of manganese-dependent superoxide dismutase gene (*sodA*) sequences: reclassification of *Streptococcus infantarius* subsp. *coli* as *Streptococcus lutetiensis* sp. nov. and of *Streptococcus bovis* biotype II.2 as *Streptococcus pasteurianus* sp. nov. Int. J. Syst. Evol. Microbiol., 2002, 52, 1247-1255.
- 64 • AGUIRRE (M.) and COLLINS (M.D.): Phylogenetic analysis of some *Aerococcus*-like organisms for urinary tract infections: description of *Aerococcus urinae* sp. nov. J. Gen. Microbiol., 1992, 138, 401-405.
- 65 • COLLINS (M.D.), AGUIRRE (M.), FACKLAM (R.R.), SHALLCROSS (J.) and WILLIAMS (A.M.): *Globicatella sanguis* gen. nov., sp. nov., a new gram-positive catalase-negative bacterium from human sources. J. Appl. Bacteriol. 1992, 73, 433-437.]
- 66 • G GAUTHIER, B LAFAY, R RUIMY, V BREITMAYER, JL NICOLAS, M GAUTHIER, and R CHRISTEN Small-subunit rRNA sequences and whole DNA relatedness concur for the reassignment of *Pasteurella piscicida* (Snieszko et al.) Janssen and Surgalla to the genus *Photobacterium* as *Photobacterium damsela* subsp. *piscicida* comb. Nov Int. J. Syst. Bacteriol., Jan 1995; 45: 139 - 144.

**bioMérieux S.A.**  
69280 Marcy l'Etoile  
France  
Tel. : 33 (0)4 78 87 20 00  
Fax : 33 (0)4 78 87 20 90

[www.biomerieux.com](http://www.biomerieux.com)

