The WAAAR declaration against antibiotic resistance

Jean Carlet, on behalf of the members of the World Alliance Against Antibiotic Resistance (WAAAR)

The increase in antibiotic resistant bacteria poses a major healthcare threat. In the face of an almost complete absence of new antimicrobial drugs in development, antibiotic resistance (ABR) has become one of the main public health problems of our time. Antibiotics are a unique class of medications because of their potential societal impact; use of an antibiotic in a single patient can select for ABR resistance that can spread to other people, animals, and the environment, making an antibacterial used in one patient ineffective for many others. Bacterial resistance can evolve rapidly. As bacteria acquire resistance mechanisms, the altered bacterial genetic material coding for resistance mechanisms can be transmitted at times readily between bacteria, broadening the reach and extent of resistance. Treatment failures because of multidrug resistant (MDR) bacteria, once rare, notable, and limited to hospitals, now occur very commonly in hospitals and increasingly in the community as well. It is estimated that at a minimum 25000 patients in Europe and 23000 in the USA die each year from infections caused by resistant bacteria. The cost of antibiotic resistance is tremendous, whether measured as the personal and societal burden of illness, death rates, or healthcare costs.

Although it is a never-ended phenomenon, antibiotic resistance is directly related to the volume of antibiotics used. We are using increasing amounts of antibiotics in health care and agriculture, and discharging these active drugs into the environment. The impact of
widespread antibiotic use is enormous, promoting the development and dissemination of antimicrobial resistance.

We must change how antibiotics are used and adopt proactive strategies, similar to those used to save endangered species. Preservation of the efficacy of antibiotics and to stabilization of antibiotic-susceptible bacterial ecosystems should be global goals.

Safeguarding antibiotics will require a concerted effort by patients and prescribers. The primary goal of WAAAR is to raise awareness about the urgency and magnitude of the threat and to promote an international dialogue to assist in effective responses. The Alliance, in particular through this declaration, is dedicated to lobbying actively for antibiotic preservation and to raising awareness among antibiotic prescribers, politicians and policy-makers, patient safety and advocacy groups, the pharmaceutical industry, international health organizations, and the general population. Individual actions, no matter how well intended, are doomed to failure unless there is an international dialogue, a common sense of purpose, and broad consensus on how best to proceed.

WAAAR advocates for the following 10 actions:

1) **Promotion of awareness of all the stakeholders - including the general public - of the threat represented by antibiotic resistance.** Strong cooperation among international political and/or economic organizations, which, all together, must take the lead of this action against antibiotic resistance.

2) **Organization, in each country, ideally by Ministries of Health or regulatory bodies, of a financed national plan for the containment of antibiotic resistance, with the participation of all stakeholders, including patient advocacy groups**

3) **Continuous access to antibiotics of assured quality, especially in middle and low income countries**

4) **Integrated Surveillance of antibiotic resistance (ABR) and antibiotic use**
Standardized monitoring of antibiotic use and resistance at institution, regional, and country (comprehensive national data instead) level (through a Centers for Diseases Control and Prevention model) to allow comparative statistics (benchmarking), to be updated preferably in real-time and at least every 12 months. This will require adequate laboratory capacity using international standardized methods that may be facilitated by a centralized technologic coordinating infrastructure and information technology.

5) **Use of diagnostic tests**

Appropriate use of existing diagnostic tests and development and implementation of new rapid, cost-effective and accurate diagnostic tests, adapted to the local context, to aid in distinguishing bacterial and nonbacterial etiologies. Rapid diagnostics may help clinicians avoid unnecessary treatments, rapidly select appropriate targeted therapies and inform the duration of treatment.

6) **Antibiotic stewardship (prudent, controlled and monitored approaches to the use of antibiotics)**

- In humans (hospitals, long term care facilities and primary care).
- In animals (animal husbandry, agriculture, aquaculture and animal health/veterinary setting), in a “one health” philosophy.
- Progressive elimination of the “over the counter” (i.e. available without a prescription) access to antibiotics (systemic and topicals) for humans or animals.
- Ban of the use of antibiotics as growth promotion in food animals, and exceptional use in prophylaxis.
- Rational use of metaphylaxis (Prophylaxis when some animals in the livestock are sick, or at high risk to be sick), and of treatment of the animals.
- Limitation of the use of critically important antibiotics in humans and animals (e.g., carbapenems).

7) **Educational efforts for change**

- Educational programs directed at children/teenagers on antibiotics, bacterial resistance, and infection control (e-Bug model)
- Development of large coordinated, effective information and awareness campaigns directed at the public on expectations about the rational/appropriate use of antibiotics.
- **Continuous** education and training programs in the curriculum for all health care professionals in all settings (veterinarians, medical, dental, nursing, pharmacy and allied health care schools) and continuing professional education programs, on the rational use of antibiotics, including indications, dosing and duration of therapy. Education of farmers.

8) **Containment of bacterial transmission and prevention of infection**
- Promotion of universal hand hygiene and all infection control interventions that have been proven to reduce rates of resistance
- Relentless efforts to prevent transmission of MDR organisms in healthcare, food production and animal husbandry
- Programs to limit the contamination of drinking water with MDR bacteria, as well as contamination of the environment
- Promotion of the use of available vaccines, in humans and animals

9) **Basic and applied research, and development of new antibiotics**
- Increased support for basic and applied research aiming at curbing bacterial resistance in human and veterinary medicine.
- Incentives to stimulate research of new drugs (antibiotics and novel compounds) and vaccines via regulatory pathways that allow fast track developments of these new drugs.
- New economic business models to support the cost of innovation while safeguarding public health interests.

10) **Request for UNESCO to include the antibiotics in the list of the intangible cultural heritage.**

*We urge all of you to participate in this crusade, in your own field of interest. The medical miracle of antibiotic therapy must be protected – this is a global priority and our duty. Please, help us to act NOW, by supporting this declaration, to promote wiser use of antibiotics in animal and human health, and the necessary accompanying political actions to support better education, integrated surveillance for public health action, and research.*

**About WAAAR**
WAAAR is a group of 700 individuals from 55 different countries representing all the key stakeholders (physicians, veterinarians, microbiologists, surgeons, pharmacists, nurses, evolutionary biologists, ecologists, environmentalists, patient advocacy groups). The Alliance receives support from more than 140 learned societies or professional groups throughout the world. WAAAR is a non-profit organization open to professionals and consumers worldwide. WAAAR receives no funding from the pharmaceutical industry.

Contact via jeancarlet@gmail.com

People supporting the WAAAR declaration

Jacques Acar (France), Amani Alnimr (Saudi Arabia), Fatma Amer (Egypt), Massimo Antonelli (Italy), Gérard Bapt (France), Yvana Balter (France), Yaron Bar-Lavie (Israel), Philippe Berthelot (France), Jean Carlet (France), Yehuda Carmeli (Israel), Otto Cars (Sweden), Bernard Castan (France), Jean Daniel Chiche (France), Jon Cohen (UK), Peter Collignon (Australia), René Courcol (France), Pierre Della Monica (France), George Dimopoulos (Greece), Ricardo Durlach (Argentina), Petra Gastemeier (Germany), Abdul Ghafur (India), Don Goldman (USA), Thomas Gottlieb (Australia), Jennifer Grant (Canada), Susan Huang (USA), Françoise Leblanc-Jouffre (France), Joel Leroy (France), Ling Moi Lin (Singapore), Fernando Luís Lopez Cardozo (Brazil), John McGowan (USA), Jordi Mancebo (Spain), Shahen Mehtar (South Africa), Andrew Morris (USA), Babacar N’Doye (Senegal), Michael Niederman (USA), Gérard Nitenberg (France), Patrice Nordman (France), Steve Opal (USA), Jose Arthur Paiva (Portugal), Pierre Parneix (France), Trish Perl (USA), Didier Pittet (Switzerland), Jean François Pittet (USA), Garyphallia Poulokou (Greece), Céline Pulcini (France), Christain Rabaud (France), Claude Rambaud (France), Josette Raymond (France), Viviana Rodriguez (Argentina), Lynora Saxinger (Canada), Benoît Schlemmer (France), Sanjeev Singh (India), Jonathan Theodore (France), Gupta (UK), Cruz Cordero (Brazil), Philip Dellinger (USA), Michel Baussier (France), Xavier Lescuré (France), Antoine Andremont (France), Jean-Pierre Hermet (France), Patrick Coloby (France), Dominique Peyramond (France), Jacques Gilquin (France), Andreas Voss (The Netherlands), Jan Kluymans (The Netherlands), Peter Pronovost (USA), Jean Louis Vincent (Belgium), Ethan Rubinstein (Canada), Vladimir Rudnov (Russia), Sophie Matheron (France) Remy Gauzit (France), Anny Poursinoff (France), Garance Upham (France), Xiao Yonghong (China), Rafael Canton (Spain), Mathias Pletz (Germany), Manuel Guzman (Venezuela), Gabriel Levy-Hara (Argentina), Jesus Rodriguez-Bano (Spain), Lindsay Grason (Australia), Chistian Chidic (France), Alain Michel Ceretti (France), Claude Carlet (France), Philippe Thevenot (France), Bruno Housset (France), Pierre Weinbreck (France), Didier Payen de la Garanderie (France), Bruno Marchou (France), François Tremolieres (France), Gilbert Mouton (France), Michel Troade (France), Olivier Romain (France), Robert Cohen (France), France Cazenave-Roblots (France), Marc Veilly (France), Nicolas Terzi (France), Benoit Guery (France), Dominique Valla (France), Claude Attali (France), Jean Pierre Aubert (France), Philippe Vanhems (France), Cecile Mourlan (France), Catherine Guignabert (France), Catherine Cordonnier (France), Louis Gasgagne (France), Jean Brami (France), Bernard Garo (France), Alain Bousquet-Melou (France), Christian Brun-Buisson (France), Thierry Calandra (Switzerland), Antonio Torres (Spain), Jos van der Meer (The Netherlands), Grant Waterer (Australia), Ibrahim Yusuf (Nigeria), Emile Zein (Libanon), Sanjay Gupta (UK), Cruz Cordero (Brazil), Philip Dellinger (USA), Michel Baussier (France), Xavier Lescuré (France), Antoine Andremont (France), Jean-Pierre Hermet (France), Patrick Coloby (France), Dominique Peyramond (France), Jacques Gilquin (France), Andreas Voss (The Netherlands), Jan Kluymans (The Netherlands), Peter Pronovost (USA), Jean Louis Vincent (Belgium), Ethan Rubinstein (Canada), Vladimir Rudnov (Russia), Sophie Matheron (France) Remy Gauzit (France), Any Poursinoff (France), Garance Upham (France), Xiao Yonghong (China), Rafael Canton (Spain), Mathias Pletz (Germany), Manuel Guzman (Venezuela), Gabriel Levy-Hara (Argentina), Jesus Rodriguez-Bano (Spain), Lindsay Grason (Australia), Chistian Chidic (France), Claude Carlet (France), Philippe Thevenot (France), Bruno Housset (France), Pierre Weinbreck (France), Didier Payen de la Garanderie (France), Bruno Marchou (France), François Tremolieres (France), Gilbert Mouton (France), Michel Troade (France), Olivier Romain (France), Robert Cohen (France), France Cazenave-Roblots (France), Marc Veilly (France), Nicolas Terzi (France), Benoit Guery (France), Dominique Valla (France), Claude Attali (France), Jean Pierre Aubert (France), Louis Gasgagne (France), Jean Brami (France), Bernard Garo (France), Alain Bousquet-
Melou (France), Christian Brun-Buisson (France), Stephane Harbath (Switzerland), Fabienne Tamion (France), Ian Gould (UK), Romain Carlet (France), Camille Carlet (France), André Cabié (France), Michel Dupont (France), Fernando Baquero (Spain), Serge Alfandari (France), Thierry Mayet (France), Emmanuelle Varon (France), Anne Lotté (France), Gérard Larroussine (France), Thierry Lavigne (France), Jean-Paul Mira (France), Françoise Balleau (France), Marin Kolleff (USA), Elisabeth Heisbourg (Austria), Hajo Grundman (The Netherlands), Paul Richman (USA), James Hughes (USA), Tim Walsh (UK), David Vaughan (USA), Pierre-François Laterre (Belgium), Jessica Minion (Canada), Tatiana Galperine (France), Jean-Luc Schmit (France), Marie-Laure Joly-Guillou (France), Jacques Birgé (France), Konrad Reinhart (Germany), Thi Anh Thu Le (Vietnam), Vincent Jarlier (France), Marces Cyrillo (Brazil), James Johnson (USA), Naima Eldaghrí (Morocco), Philippe Eggimann (Switzerland), Donald Craven (USA), Agnes Riche (France), Olivier Lehani (France), Jean-Paul Stahl (France), Alain Lepeau (France), Laurent Thiriet (France), Mercedes Palomar Martinez (Spain), Alvaro Villanueva (Spain), Jean Christophe Lucet (France), Jean Yves Madec (France), Lucy Palmer (USA) Eli Perencevich (USA), Bruno Hoen (France), Daniel Floret (France), Pierre Tattevin (France), Bernard Page (France), Olivier Jonquet (France), Anne Savey (France), Fabrice Brunelle (France), Bernard Garo (France), Aidan Hollis (USA), Bertrand Guidet (France), Robert Weinstein (USA), Dominique Jean (France), Benoît Misset (France), Maité Garrouste-Orgeas (France), Hervé Lelouet (France), Jean Luc Mainardi (France), Apostolos Aragamidisis (Greece), Thierry May (France), Irène Frachon (France), Bernard Chanfreau (France), Antoine Andremont (France), Frédérique Beuhorry-Sassus (France), Nicolas Terzi (France), Pascal Chavanet (France), Jacques Fabry (France), Franck Mansour-Adeoti (France), Florian Carlet (France), Badreddine Kilani (Tunisia), Virginie Vitrat (France), Fekri Abroug (Tunisia), Keith Kugman (USA), Claude Martin (France), Marthe Than Lecompte (Switzerland), Stephen Zinner (USA), Joséphine Zoungrrana (Burkina Faso), Jordi Rello Condomines (Spain), Christelle Miquel (France), François Angoulvant (France), Despoina Koulenti (Greece), Anahi Deser Manso (Mexico), Antonio Artigas (Spain), Jean Claude Revil (France), Jean Charles Chakarian (France), Adnida Crespin (France), Jacques Vancel (France), Jeffrey Lipman (Australia), Maryvonne Anguill (France), Alain Martinot (France), Alejandra Corso (Argentina), Shmuel Benenson (Israel), Corinne Alberti (France), Pierre-Louis Druais (France), F Berghave (France), Alexis Tabah (France), Jean Chastre (France), Josette Raymond (France), Laurent Aaron (France), Jean-Philippe Tabut (France), Eleni Giarmarellou (Greece), Pierre Dellamonica (France), Dimitrios Matamis (Greece), Gordon Borgey (France), Jean-Patrick Lajonchère (France), François Lacoin (France), Isabelle Hermes (France), Pascal Beuret (France), Martine Aupée (France), Didier Thevenin (France), Marie-Anne Barthélémy (France), Jean-Louis Hunault (France), François Philippart (France), Didier Gaillard (France), François Blot (France), Thierry Lavigne (France), Fred Tenover (USA), Paul Edelstein (USA), Phillip Tarr (USA), Amani Alnirrn ( ), Stacey Klutts (USA), Catherine Dumartin (France), Philippe Thévenot (France), George Zhanel (Canada), John Chandy (USA), Sheldon Brown (USA), Scott Weissman (USA), Dimitri Drekonja (USA), Ouaihad Barouti (Morocco), Nathalie Landgraf (France), Sara Soto (France), Georg Peters (Germany), Javier Adachi (USA), Michael Kresken (Germany), Monique Rothan-Tondeur (France), Anne-Marie Lavenaire (France), Luis Martinez Martinez (Spain), Anette Hammerum (Denmark), Carl Urban (France), Elisabeth Rossines (France), Vincent Castellat (France), B Marchou (France), Joel Livartowski (France), Jacques Gaillart (France), Ludvine Chalumeau-Lemoine (France), Dan Engelhard (Israel), Francesco Flozaro (Spain), Robert Wachter (USA), Nadezhda Zubareva (Russia), Luis Vasestrello (Chile), Alexander Friedrich (The Netherlands), Paul Anantharajah Tambayoh (Singapore), Ossama Rassia (Egypt), Li Yang Hsu (Singapore), Marie-Cecile Ploy (France), Jeanine Wiener-Kronish (USA), John Marshall (Canada), Francisco Lopez Medrano (Spain), William Jarvis (USA), Eui-Chong Kim (South Korea), Xavier Bertrand (France), Marine Giard (France), Helena Ramos (Portugal), Ramanan Laxminarayan (USA), Henrik Caspar Wegener (Denmark), Nordiah Jailil (Malaysia), Joseph Hajar (France), Pascal Povedras (France), Manuela Canica (Portugal), Sandra Biscardi (France), Edward Abraham (USA), Mitsuo Kaku (Japan), Joseph Blondeau (Canada), Sara Cosgrove (USA), Gordon Bernard (USA), Rehab Elsaid (Egypt), Rehab Elsokari (Egypt), Noha Hammad (Egypt), Xiao Honghong (China), F Berghave (France), Mohamed Salah Abassi (Tunisia), Degracies Kaddu-Mulindwa (Uganda), John Marshall (Canada), Marek Gniazdowski (Poland), Waleria Hryniewicz (Poland), Marie-Anne Barthélemy (France), Gabriela Echaniz (Mexico), Bernard Augereau (France), Antonio Artigas (Spain), Luis Blanch (Spain), Joseph Thur (USA), Anne Amrana (France), Celia Alpuche Aranda (Mexico), Dominique Salmon (France), Francisco Alvarez de Lerma (Spain), Jean-Yves Gauchot (France), Massimo Puoti (Italy), Nam Yong Lee (South Korea), Iruka Okeke (USA), Gaetan Gavazzi (France), Evangelos Giarmarellos-Boumboulis (Greece), Philippe Montravers (France), Narender Sai (India), Dr VijAYAKUMAR (India), Kirane Romand (France), Christopher Farmer (USA), Mitchell Levy (USA), Martin Dünser (Austria), Hafaa Al-Mousa (Kuwait), Abeer Omar (Kuwait), Seif Al-Abri (Oman), William Cheadle (USA), Bernard Regnier (France), Joao Gouveia (Portugal), Ricardo Matos (Portugal), Dr Muruganathan (India), Carol Thompson (USA), Miguel Sanchez Garcia (Spain), Francisco Alvarez Lerma (Spain), EP Delling (USA), Manuel Cassiano-Neves (Portugal), Sandra Fournier (France), Julie Gerberding (USA), Alix Greder (France), Dr Finn (USA), John Conly (Canada), Lilian Abbou (USA), Frederic Collot (France), Lotte Jakobsen (Denmark), Hilde Jansens (Belgium), Aburjania Nana (USA), Oladipo Aboderin (Nigeria), Fernando Gil Sans (Spain), Emilio Maseda (Spain), Cedric Bretonnière (France), William Cheadle (USA), Enani Mushira (Saudi Arabia), Huda Bukhari (Saudi Arabia), Charalambos Gogos (Greece), Darcy Marciniuk.
Moreno (Canada), David Looke (Australia), Alexander Wilmer (Belgium), Yannick Malledant (France), Mohan Gurjar (India), Davide Bastoni (Italy), Ibrahim Yacoub-Agha (France), Jan De Waele (Belgium), Thomas Beek (USA), Frederico Bruzzi de Carvalho (Brazil), Simon Finfer (Australia), Christophe Brard (France), Sundaresan Maiyagan (Mauritius), Pradip Gupta (India), Mohamed Elghonemi (Egypt), Eleni Antoniadou (Greece), Tom Van Der Poll (The Netherlands), Eric Guaguere (France), Marie-Cauve Saux (France), J Fernandez (Spain), Jose Miro (Spain), Patrick Pléiat (France), Rabiu Umar (Nigeria), Greg Barton (UK), Mark Gilchrist (UK), Marie Matthews (UK), Dufour-Pierrat (France), Joy Mootien (France), Jose Mario Meira Teles (Brazil), Reinaldo Salomao (Brazil), Florence Gordon (France), Eric Ozio (France), Thierry Mayet (France), Frédérique Lemanach-Kergueris (France), Gwenaëlle Guerout-Locker (France), Albert Mifsud (UK), Matthew Peters (Australia), Peter Wark (Australia), Rui Moreno (Portugal), Magolia Mikaszewska-Sokolewicz (Poland), Christophe Buhot (France), Jan Vaarten (), Shannugan Puvanendiram (Sri Lanka), Hervé Blanchard (France), Xavier Forceville (France), Cyrille Nowak (France), David Lupande (RDCongo), Oliver Dyr (UK), Van Der Marquet Nathalie (France), Guillaume Arlet (France), Anita Harel (France), Matjaz Jereb (Slovenia), Ling Moi Ling (Singapore), Janet Schoemaker (USA), Pedro Maria Olachea (Spain), Antonio Santos Bouza (Spain), Jordi Solé Violan (Spain), Assumpta Novira (Spain), Carlos Ortiz Leyba (Spain), Annabelle Stoclin (France), Enrique Maravi (Spain), Antonio Albaya Moreno (Spain), Assumpta Rovira (Spain), Carlos Ortiz Leyba (Spain), Robert Chausset (France), Buke Oudega (The Netherlands), Wafaa Mowafy (Egypt), Dietmar Schneider (Germany), Jean François Rousselot (France), Remi Varin (France), Jean-Yves Gaudrot (France), Pierre-Eric Danin (France), Catherine Bruant-Rodier (France), Jean Delmont (France), Michael Quintel (Germany), Elke Muhl (Germany), Rosana Richmann (Brazil), Katrin Fjeldsted (Israel), Birgit Beger ( ), Jacinthe Foegle (France), Christian Michelet (France), Fethi Bensalem (France), Pascal Chavanet (France), Regina Hanke (Germany), Natalia Chueca (Spain), Frederic Aubier (France), David Martin (USA), Steve Crane (USA), Christopher Farmer (USA), John Billington (USA), Ofa Bahri (Tunisia), Hakan Hanberger (Sweden), Hanene Tiouiri (Tunisia), Wafa Achour (Tunisia) on behalf of WAAR (World Alliance Against Antibiotic Resistance)

**Supporting medical societies**

- The Infectious Diseases Society of America (IDSA) (John Billington, David Reiman)
- American Society of Microbiology (ASM) (Janet Schoemaker)
- European Society of Infectious Diseases and Clinical Microbiology (ESCMID) (Gunnar Kahlmeter, Murat Akova)
- American Thoracic Society (ATS) (Dr. Finn, Steve Crane)
- American College of Chest Physicians (ACCP) (Darcy Marciniuk)
- Society of Critical Care Medicine (SCCM) (Carol Thompson, David Martin)
- International Society of Infectious diseases (ISID) (Jon Cohen, Keith Klugman)
- International society of Chemotherapy (Ian Gould)
- Pan American Society of Infectious Diseases (Luis Bavestrello)
- European Society of Intensive Care Medicine (ESICM) (Jean Daniel Ciche)
- European Federation of orthopedy and traumatology (Manuel Cassiano-Neves)
- British Society of Antimicrobial Chemotherapy (Nicholas Brown, Laura Piddock)
- Société Libanaise de Médecine Interne (SLMI) (Emile Zein)
- Association Tuni sienne de Réanimation (ATR) (Fekri Abroug)
- Société Tunisienne de Pathologie Infectieuse (STPI)
- Sociedade Paulista de Infectologia-Brazil (Rosana Richman)
- Société Belge de Microbiologie Clinique (BVIKM/SBIMC) (Camelia Rossi)
- Société Marocaine de Maladies Infectieuses (SMMI),
- Australasian Society for Infectious Diseases (ASID), (David Looke)
- Australian Society for Antimicrobials (ASA) (Thomas Gottlieb),
- Hellenic Society of Intensive Care (Antonios Mavrommatis)
- Israel Society for Infectious Diseases,
- Brazilian Society of Infectology,
- Sociedad Española de Medecina Intensiva ,Critica y Unidades Coronarias (SEMICYUC) ( Luis Blanch, Miguel Sanchez Garcia, Francisco Alvarez Lerma)
- Sociedad Española de Enfermedades Infecciosas y Microbiología Clinic (SEIMC) (Jose M Miro),
Société Espagnola de Enfermedades Respiratorias (SEPAR) (Pilar de Lucas)
Hellenic Society of Antimicrobial Chemotherapy (Helen Giamarellou)
Italian Society of Anesthesiology, Analgesia and Intensive Care Medicine (SIAARTI)(Massimo Antonelli)
Société Marocaine d’Hygiène Hospitalière (Ouahid Barouti)
Paul-Ehrlich-Gesellschaft für Chemotherapie e.V.(Paul-Ehrlich-Society for Chemotherapy (Achim Hoerauf)
Sociedad Andaluza de Enfermedades Infecciosas (SAEI)
Association for Infection Control “ESIC” (APIC/Egypt Chapter)(Ossama Rassla)
Korean Society of Clinical Microbiology (Nam Yong Lee)
Portuguese Society of Infectious Diseases and Clinical Microbiology (Helena Ramos)
Portuguese society of intensive care (Joao Gouveia, Ricardo Matos)
Ho Chi Minh city Infection Control Society (Thi Anh Thu Le)

The Mexican Society of Infectious Diseases and Clinical Microbiology (AMIMC)(Celia Alpuche Aranada)
Indian Medical Association (Dr Saini, Dr Vijayakoumar)
Association of physicians of India (Dr Muruganathan)
Belgium Infection control society (BICS) (Hilde Jansens)
Société Française de Médecine Générale (SFMG) (Pascale Arnould)
Société Française de Chirurgie Orthopédique et traumatologique (Bernard Augereau)
Association Française de Chirurgie (Jean Pierre Arnaud)
Association Française d’Urologie (AFU) (Patrick Coloby)
Société de Pathologie Infectieuse de Langue Française (SPIFL)(Christian Rabaud)
Société Française de Microbiologie (SFM)( René Courcol)
Société Française d’Hygène Hospitalière (SF2H) (Philippe Berthelot)
Société Française de Santé Publique (SFSP) (Pierre Lombrail)
Société de Réanimation de Langue Française (SRLF) (Djillali Annane)
Société Française d’Anesthésie Réanimation (SFAR)( Dan Benhamou)
Société de Pneumologie de Langue Française (SPLF) (Alain Didier)
Fédération Française de Pneumologie (Bruno Housset)
Société Française de Greffe de Moelle et de thérapie cellulaire(SFGM)( Ibrahim Yacoub)
Société Française de Gériatrie et Gérontologie (SFGG)( Geneviève Ruault)
Société Française de Médicine Interne (SFMI)( Loic Guillevin)
Société Française de Dermatologie (SFD)( Olivier Chosidow)
Association vétérinaire équine française (AVEF)(Jean-Yves Gauchot)
Society of Infectious diseases Singapore ( Paul Anantharaja Tambyah)
Spanish society of anesthesiology and critical care (Fernando Gilsanz, Emilio Maseda)
Surgical Infection Society (SIS) (William Cheadle)
Lebanese Association for Medical Diagnosis and Auto-Immune Diseases(Lambda) (Georges Khalili)
Saudi Society of Medical Microbiology and Infectious Diseases (Huda Bukharie)
Belgian Society of Intensive Care Medicine (SIZ)(Alexander Wilmer)
Société Nationale des Groupements Techniques Veterinaires (SNGTV) (Christophe Brard)
Association Française Vétérinaire des Animaux de Compagnie (Eric Guaguere)
Société Française de Pharmacie Clinique (SFPC)(Marie-Claude Saux, Remi Varin)
Spanish Society of Infectious Diseases and Clinical Microbiology (José Miro, Rafael Canton)
United Kingdom Clinical Pharmacy Association (UKCPA ) (Mark Gilchrist, Marie Matthews)
Associação de Medicina Intensiva Brasileira (AMIB)( Jose Mario Meira Teles)
Instituto Latino-Americano de Sepsis (ILAS)( Reinaldo Salomao)
Thoracic Society of Australia and New Zeland ( Matthew Peters, Peter Wark)
British Infection Association (Albert Mifsud)
Other groups or associations

Association Le LiEN (Madeleine Madoré)
Association Le CISS (Claude Rambaud)
Fédération des Spécialités Médicales (FSM),
Association pour la chimiothérapie anti-infectieuse (ACAI),
Observatoire National d’épidémiologie de la Resistance Bactérienne aux antibiotiques(ONERBA)(Marie-Hélène Nicolas-Chanoine)
Collège National des Généralistes Enseignants (CNGE)(Pierre louis Druais)
Collège national de médecine générale (CNMG),
Fédération Française de pneumologie (FFP) (Bruno Housset)
Groupe de Pathologie Infectieuse en Pédiatrie (GPPIP)( Robert Cohen)
Collège des Enseignants de Maladies Infectieuses (CMIT),(Christian Michelet)
Fédération Française d’Infectiologie (FFI),(Christian Perrone)
Institut Maurice Rapin (IMR),(Christian Brun-Buisson)
Medqual (F. Ballereau),
Antibior (C Rabaud),
Observatoire du Risque Infectieux en Gériatrie (ORIG),
Réseaux de surveillance des antibiotiques et des bactéries multi-résistantes du Sud Est,
Le Forum des bio-hygiénistes,
Arab Alliance for a prudent use of antimicrobials (Ar-Apua),(Fatma Amer)
Association Phagespoir (Jérôme Larché)
Programme National de lutte contre l’infection nosocomiale (PRONALIN, Senegal),
Réseau International pour la Planification et l’Amélioration de la Qualité, et de la Sécurité dans Services de Santé en Afrique (RIPQA5)(Bernard Chanfreau)
Infection Prevention and Control African Network (IPCAN), (Shaheen Mehtar)
Portuguese Intersectorial Alliance for the Preservation of the Antibiotics(APAPA) (Jose Arthur Paiva)
Association des médecins coordonnateurs en EHPAD,
Association de Lutte contre les Infections Associées aux Soins (ALIAS),
Ligue Africaine des Associations pour la Sécurité des patients (LIASEP),
ESGAP working group (ESMID)(Jordi Rello)
Association des victimes d’infection nosocomiale (ADVIN),
Comité de pilotage des réseaux de surveillance ATB et BMR Sud EST.
Hellencic Sepsis Study Group (Evangelos Giamarellos-Bourboulis)
Institut de recherche en médecine générale (IRMG)
The Canadian Antimicrobial Resistance Alliance(CARA)
The Gulf Cooperation council (GCC) (Hanan Balkhy)
Center for infection control and the APIC-Saudi chapter. (Hanan Balkhy)
Global Sepsis Alliance (Konrad Reinhart)
The Eastern Mediterranean Regional Network for Infection Control "EMRNIC" (Ossama Rassla)
Egyptian Patient Safety Association "EPSA" (Ossama Rassla).
Grupo de infeção e sepsis (José Arthur Paiva)
CCLIN Ouest (Maryse Aupée)
International Forum for Acute Care Trialists (InFACT) (John Marshal)
Infection Control Directorate (Ministry of Health-Kuwait)
National Committee for the proper use of antimicrobials (Ministry of Health-Kuwait).

The Bekele Afessa Initiative to Improve Sepsis Care in Resource-Limited Areas
(Joseph Christopher Farmer)
Austrian Antibiotic Stewardship Group (Elisabeth Heisbourg)
Doctors without borders/médecins sans frontières (Arlène Chua, Richard Murphy)
Antimicrobial Stewardship Working Group of the International Society of Chemotherapy (ISC) (Gabriel Levy Hara)
Hellenic Sepsis Study Group (Gogos Charalambos and Evangelos Giamarellos-Bourboulis)
International Sepsis Forum (Tom Van Der Poll)
Centre National de Référence de la Résistance aux Antibiotiques (Patrick Plésiat)
Grupo de Trabajo de Enfermedades Infecciosas y Sepsis De la Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (GTEIS-SEMICYUC) (Pedro Maria Olaechea)
Association pour la recherche en Microbiologie expérimentale (Marie-Laure Joly-Guillou)