日本食の機能性開発センター セミナー

（日本食・発酵食品の革新的研究開発拠点）

Antimicrobial Resistance in Pathogenic Bacteria: A Global Public Health Threat

（病原細菌の薬剤耐性：世界的な公衆衛生上の驚異）

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Dr. Ashraf M. Ahmed は，生物圏科学研究科の博士課程後期修了生であり，学術振興会外国人特別研究員（定着促進）として採択され（H28 年 8 月までの予定），現在，生物圏科学研究科食品衛生学研究室で研究を行っています。

日時： 平成 27 年 11 月 25 日（水） 16:00～17:30

場所： 生物生産学部 C314 講義室

Since the 1940s, antibiotics and similar drugs, together called antimicrobial agents, have been used for treating patients with bacterial infections. Antibiotics are one of the most important therapeutic discoveries in medical history. In addition to their central role in human medicine, antimicrobial drugs have been used extensively in livestock and poultry for the treatment, control, and prevention of animal diseases, as well as for production purposes in some regions (e.g., to enhance growth, improve feed efficiency). Antimicrobial resistance (AMR) is resistance of a microorganism to an antimicrobial drug that was originally effective for treatment of infections caused by it. When infections become resistant to first-line drugs, more expensive therapies must be used. A longer duration of illness and treatment, often in hospitals, increases health care costs as well as the economic burden on families and societies. Problems associated with the development and spread of antibiotic resistance in clinical practice are increasing day after day and are currently viewed as a major threat to the public health on a global level. The evolution of resistant bacterial strains is a natural phenomenon that occurs by mutations or when resistant genes are exchanged between them. The ability of bacteria to acquire and disseminate resistance genes via mobile genetic elements (such as plasmids, transposons, insertion sequences and genomic islands) has been the major factor in accelerating the development of multidrug-resistant bacteria. Also, global use and misuse of antimicrobial agents in human and veterinary medicine, agriculture and aquaculture has promoted and fastened the emergence of drug-resistant bacteria. Microbes will always find a way to overcome the therapeutic effect of new drugs. The prudent use of available antibiotics, i.e. only when they are needed, with the correct dosage, dose intervals and duration should be high on the international agenda. As with all infectious diseases, the speed and volume of intercontinental travel today creates new opportunities for antimicrobial-resistant pathogens to be spread globally. No country can therefore successfully tackle AMR by acting in isolation. Continuous efforts are urgently needed at global and national levels to combat and control AMR.

問い合わせ先：生物圏科学研究科食品衛生学研究室

島 本 整（内線：7897）

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