not observed typically in the barns. The antibodies against *Salmonella* spp. were detected by *Salmonella* covalent mix-ELISA. The high prevalence of antibodies were observed in two grower and finisher barns.

**P-3**

**Depletion of roxithromycin in broilers after multiple-dose oral administration of a combination agent**

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Roxithromycin is a semisynthetic macrolide derived from erythromycin. It can be effective at lower doses with less frequent administration, due to its long half-life and rapid absorption. We developed a rapid and sensitive method to determine roxithromycin in poultry tissues with LC/MS and evaluated residue depletion profiles after its oral administration for 7 days. Roxi-TF, a drug combined with roxithromycin, tylosin and furaltadone, was administered in drinking water at a dose rate of 2.0 g/ℓ (low dosage) and 8.0 g/ℓ (high dosage) to each broiler. The LOD and LOQ was satisfied to determine roxithromycin in poultry tissues. The residue concentrations of roxithromycin after treatment were declined in the course of time. Roxithromycin was not detected 5 days after treatment in all edible tissues at the low dosage. In the case of the high dosage, it was not determined 10 days after treatment. The optimal withdrawal time was suggested 10 days after oral administration of roxithromycin for 7 days in drinking water at a dose rate of 2.0 g/ℓ as ROxi-TF.

**P-4**

**Anti-Microbial Effects of Roxi-TF on the Bacteria Originated from Chicken and Fishes**

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Roxi-TF, a drug combined with roxithromycin, tylosin and furaltadone, was investigated on its *in vitro* anti-microbial effects for the bacteria originated from
chicken and fishes. In paper disk diffusion test, Roxi-TF showed over 80% of sensitivity at 64μg against the strains of *E. coli, Staphylococcus aureus* and *Mycoplasma gallisepticum* from chicken. And roxithromycin revealed 60% sensitivity at 64μg and 30–40% of sensitivity at 32μg against the strains of *Streptococcus faecalis* and *Edwardsiella tarda* originated from fishes. In minimum inhibitory concentration (MIC) test for the chicken-origin bacteria, Roxi-TF showed the MIC ranges of 0.1–16~1–8 μg/ml, which are lower than that of the other drugs tested. For the fish-origin bacteria, roxithromycin revealed the similar MIC values to erythromycin(2~≥64μg/ml), but the higher MIC values as compared with those of the other drugs.

P-5

**Effects of Administration of Roxi-TF on the Chickens Experimentally Infected with a Pathogenic *E. coli***

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Following intraperitoneal or intramuscular inoculation of a pathogenic *E. coli*, the chickens showing clinical signs were selected and treated for a week with Roxi-TF, a drug combined with roxithromycin, tylosin and furaltadone, at concentration of 0.5g/ℓ and 1.0g/ℓ by drinking water method. The Roxi-TF-treated groups showed the higher recovery rate and the lower mortality than those of the challenge control. The preventive effects of Roxi-TF for *E. coli* infection were investigated by oral administration of Roxi-TF (0.5g/ℓ & 1.0g/ℓ in drinking water) before bacterial inoculation. In both of the groups inoculated with *E. coli* by intraperitoneal or intramuscular routes, Roxi-TF revealed the significant effects of prevention, reducing the morbidity and mortality as compared with those of the untreated control group. The bacterial recovery rates were significantly lower in the Roxi-TF administered–groups than the control groups. The body weights of the chicken treated with Roxi-TF were increased almost two times as compared with that of the untreated–challenged control.

P-6

**Characterization of Verotoxin–Producing *E. coli* O157 Isolated from Slaughterhouses and Retail Stores in Korea.**