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### Advance in the detection of veterinary drug residues in animal-derived food

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The use of veterinary drugs in food producing animals has resulted in benefits throughout the food industry; however, residues from these drugs may be present in edible tissues, milk and eggs for human consumption and may exert different levels of toxicity on consumers when consuming them. The earliest methods for detecting drugs concentration were based on microbial inhibition assays. In recent years, great efforts have been made to introduce high-throughput methods, so different screening methods have been developed. We summarized some typical rapid methods for the detection of drugs in food sample based on antibody recognition and specially focus on the recent immunoassay development on new materials including biological molecules, novel labels and easy-to-use instruments. In the confirmation method fields, advances in methodology used to detect drugs have mirrored advances in analytical chemistry, from LC/UV to LC/MS/MS to UPLC/MS/MS. Generally, the scope of methods for both rapid and confirmation method has gone from a single compound detection

to multiple compounds in a drug class to multiple compounds from a wide variety of drug classes.

**Keywords** veterinary drugs;residues;detection techniques