

# R&D Snapshot

## Review of growth promotion technologies

**Investigator:** Prof Frank Dunshea, University of Melbourne

### **Purpose:**

- Conduct a review of emerging technologies and dietary additives that may be used to manipulate growth, body composition and meat quality in growing pigs.

### **Take home messages:**

- Options include:
  - Immunisation against gonatotropin releasing factor (GnRF) - reduces boar taint and sexual aggression in boars and improves lifetime feed efficiency
  - Exogenous porcine somatotropin (pST) - improves average daily gain, feed conversion efficiency and protein deposition, and reduces fat deposition
  - Ractopamine - increases lean tissue growth and improves production efficiency
  - Cysteamine - may stimulate somatotropin secretion in pigs and can increase average daily gain and decrease back fat, however, responses are variable
  - Dietary chromium - may increase insulin sensitivity in pigs, however responses on average daily gain have been variable
  - Dietary betaine - has potential to improve growth performance by reducing maintenance requirements so additional energy can be used for protein deposition
  - Dietary neuroleptics - can reduce aggressive activities in finisher pigs (especially boars) and improve growth performance.
- Concluded that research to develop a controlled delivery system for pST should continue as this technology remains the most promising method of improving efficiency and growth
- This review will be used to develop research priorities during APL's 2013/14 R&D process.

### **Additional information:**

- Contact Heather Channon at [heather.channon@australianpork.com.au](mailto:heather.channon@australianpork.com.au) or 03 9645 9189 for a copy of the full review.

