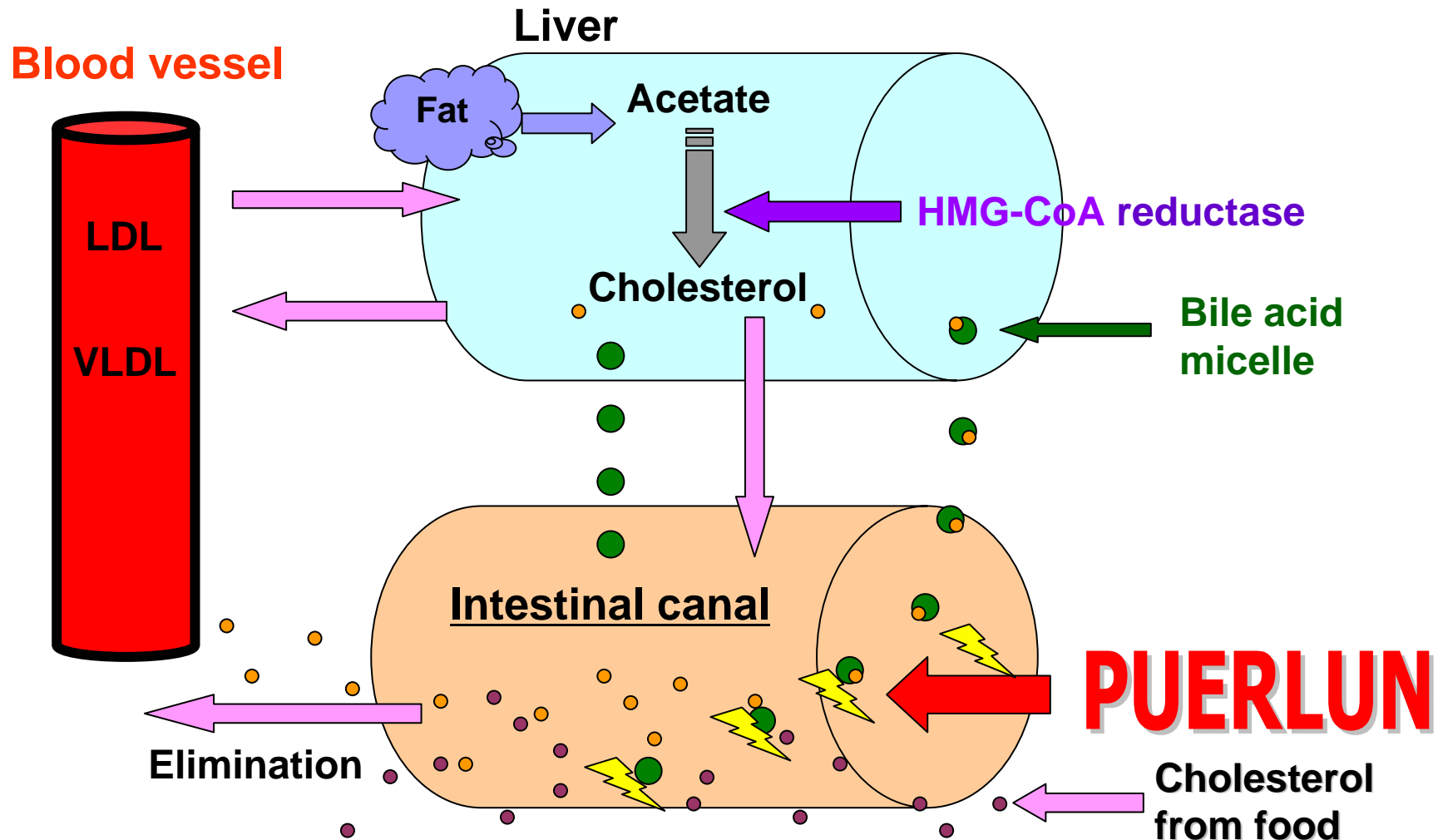




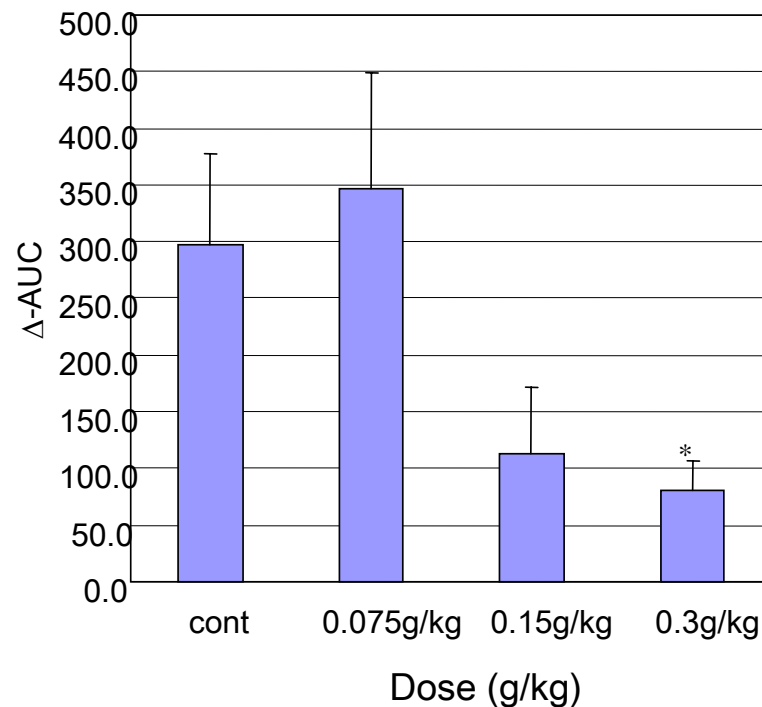
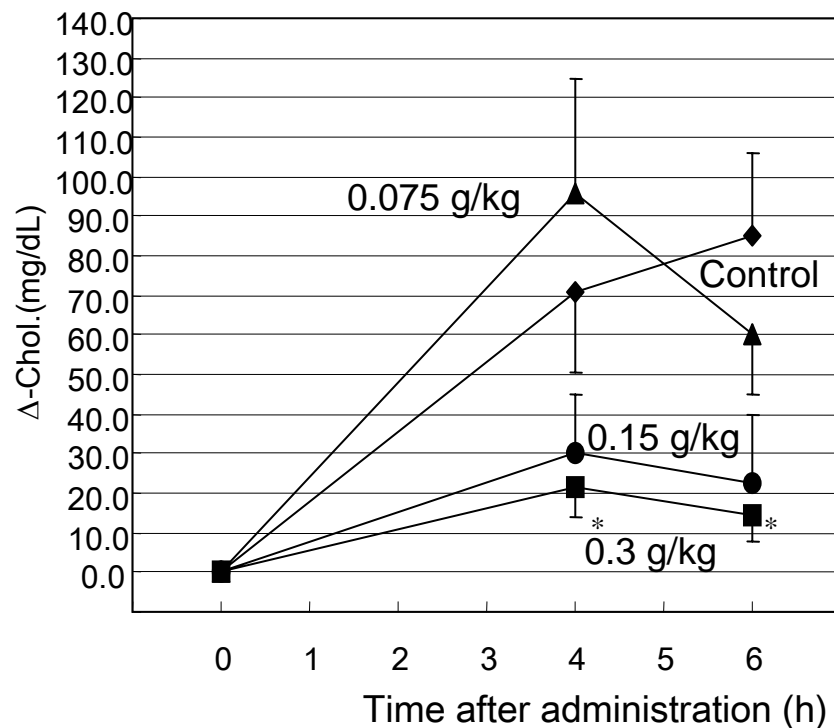
PUERLUN - effective in reducing total cholesterol & internal-organ fat

- **PUERLUN** is derived from Pu-erh tea(black tea), fermented green tea, which has been consumed as a traditional healthy tea in China for several centuries.
- Nippon Supplement has isolated the active component and identified the mechanism of action which lowers total cholesterol and LDL-Cholesterol. Patents are pending for Japan, USA, China, and EU(England, France, Germany)
- Cholesterol produced in the liver as well as some dietary cholesterol is carried within Bile Acid Micelles. **PUERLUN** breaks the wall of micelles when they are re-absorbed into the small intestine. The Cholesterol is then excreted rather than being absorbed.
- No abdominal or other side effects have been reported. No mutagenicity by the Ame's test. No acute toxicity: LD50 over 5,000mg.
- Recommended daily intake : 0.33g/meal(1g/day).

Mechanism of **PUERLUN** for reduction of total cholesterol & LDL in liver and blood.

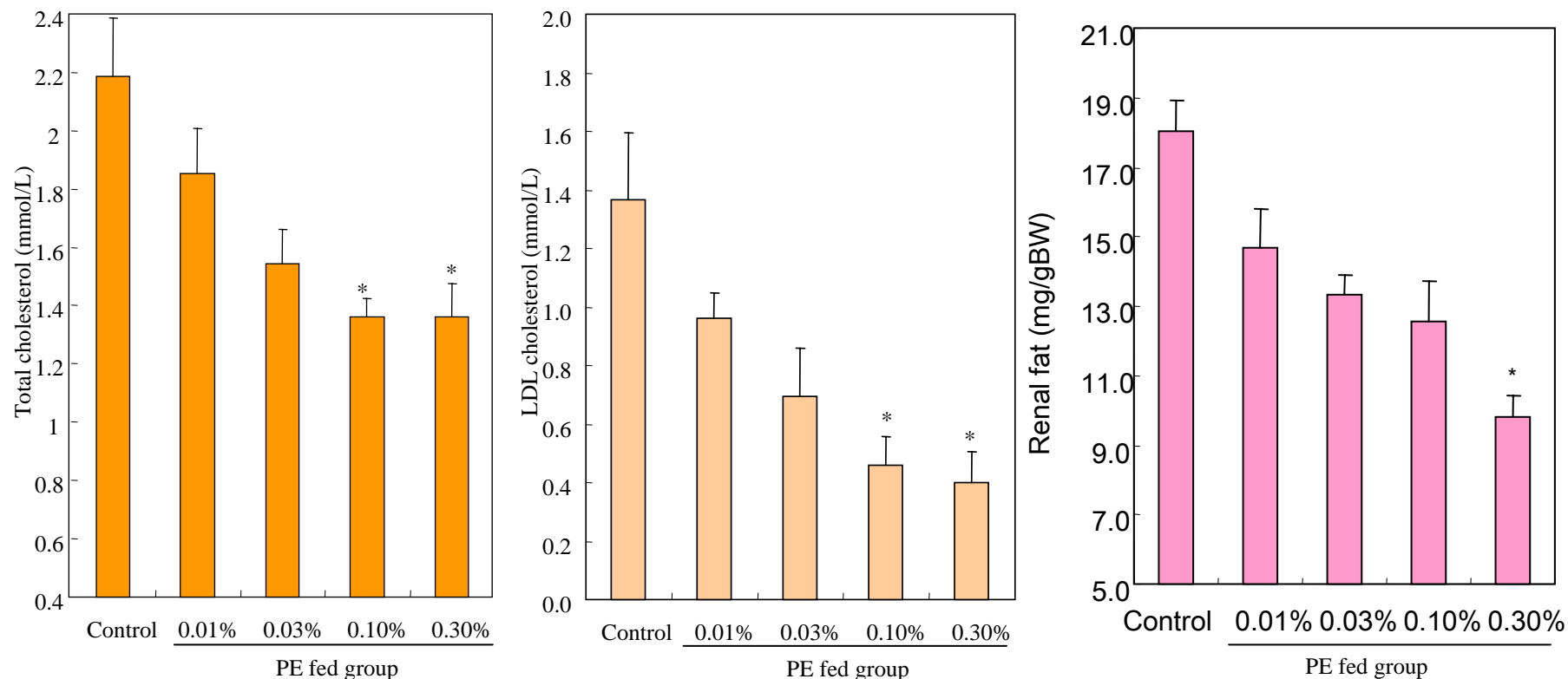


Single oral ingestion test of Puerlun in mice



Effect on blood cholesterol levels of mice following gavage administration of 130mg/kg cholesterol and **PUERLUN** (0.075, 0.15, 0.3g/kg).

Long-term oral ingestion test of Puerlun in rats



Total cholesterol, LDL and Renal fat are decreased by ingestion of PUERLUN (0.01, 0.003, 0.1, 0.3%) together with 0.5% cholesterol-fortified feed for 60days.

Renal fat in Rat

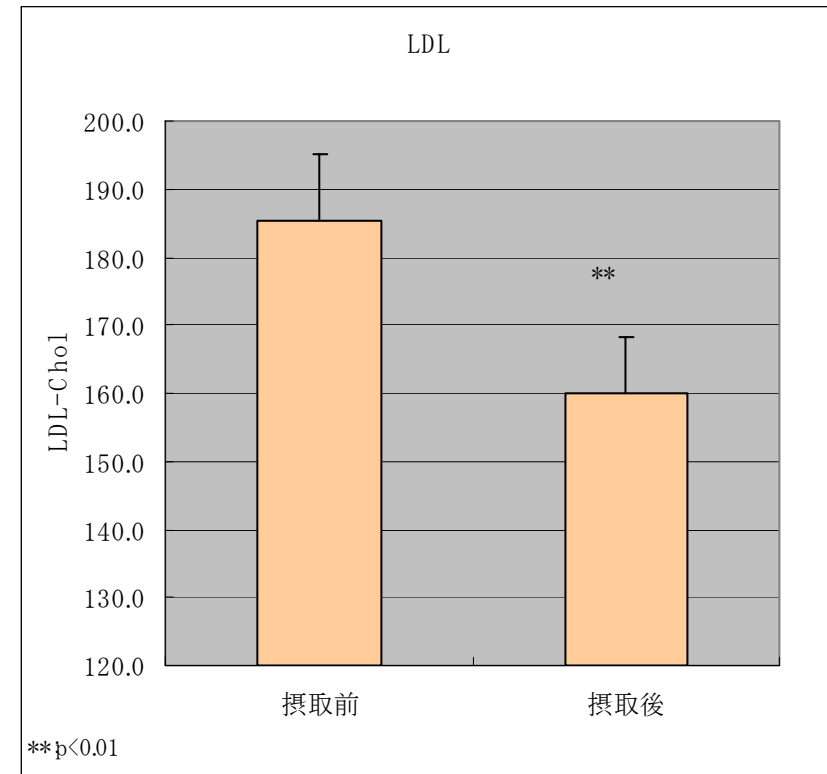
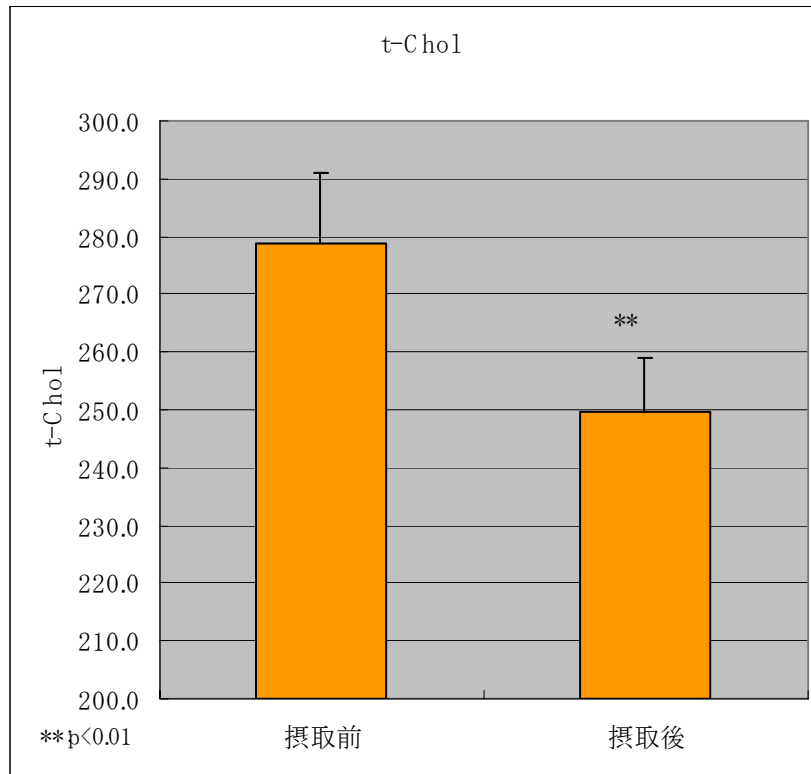
Control after 60 days



1% administration/day after 60days



PUERLUN Clinical Study

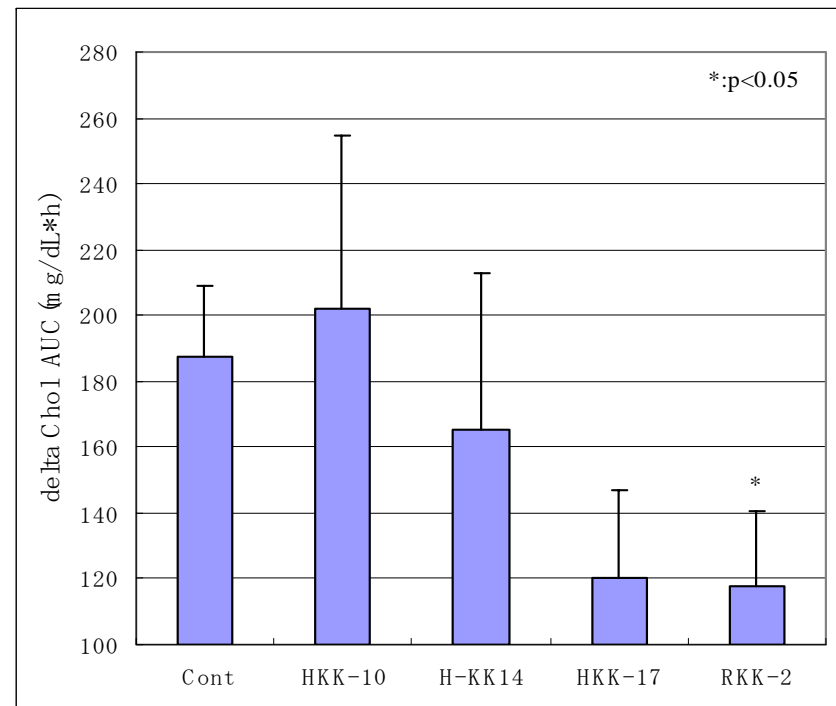
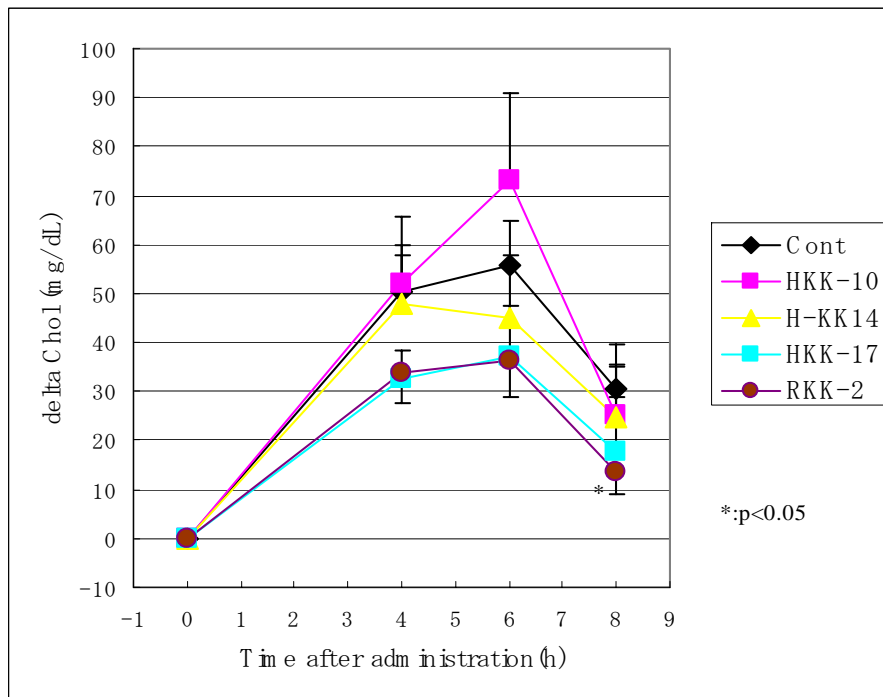


20 Hypercholesterolemic subjects ingested 0.33g **PUERLUN** each meal(1g/day) for 60 days.

■ Total cholesterol was decreased from 278.6mg/dL to 249.8mg/dL on average.

■ LDL was decreased from 188.5mg/dL to 160.1mg/dL on average.

Comparison data with green tea



HKK-10:non-fermentated (Green tea)

HKK-17:Last stage-fermentation

HKK-14:First stage-fermentation

RKK-2:Puerlun(Fermented green tea)

■ Mice : ddy male 9W , Weight average:30.7g

■ Cholesterol loading dose : Chol(4mg),Cholic acid Na(1mg), Corn oil(0.5ml)/mouse

■ Injected qty : 0.3% as Puerlun in 0.5ml water