### **Supplemental Material**

### Cinacalcet corrects biased allosteric modulation of CaSR by AHH autoantibody

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#### **Supplemental Figure Legends**

**Supplemental Figure S1. Temporal profile of serum Ca levels in our AHH patient.** The corrected calcium levels in our patient's serum over time are shown. Shortly after the episode of spontaneous exacerbation of hypercalcemia, treatment with cinacalcet was started (as also described in Figure 1A).

Supplemental Figure S2. Effects of commercial anti CaSR (214-235) antibody on CaSRdependent signals. Effects of commercial anti CaSR (214-235) antibody on CaSR-dependent IP1 accumulation using IP-One ELISA kit (CIS BioInternational) (left: Ca 1.0 mM) and ERK1/2 phosphorylation (right: Ca 2.5 mM) in HEK293 cells stably expressing CaSR. Statistical analysis was performed using Dunnett's test (left) and Student's *t* test (right). Values represent means  $\pm$  SEM of triplicate determinations. Each set of results is representative of at least two additional experiments. \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.0001

# Supplemental Figure S1



Supplemental Figure S1. Temporal profile of serum Ca levels in our AHH patient.

The corrected calcium levels in our patient's serum over time are shown. Shortly after the episode of spontaneous exacerbation of hypercalcemia, treatment with cinacalcet was started (as also described in Figure 1A).

## Supplemental Figure S2



Supplemental Figure S2. Effects of commercial anti CaSR (214-235) antibody on CaSRdependent signals. Effects of commercial anti CaSR (214-235) antibody on CaSR-dependent IP1 accumulation using IP-One ELISA kit (CIS BioInternational) (left: Ca 1.0 mM) and ERK1/2 phosphorylation (right: Ca 2.5 mM) in HEK293 cells stably expressing CaSR. Statistical analysis was performed using Dunnett's test (left) and Student's *t* test (right). Values represent means  $\pm$  SEM of triplicate determinations. Each set of results is representative of at least two additional experiments. \**P* < 0.05; \*\**P* < 0.01; \*\*\**P* < 0.0001