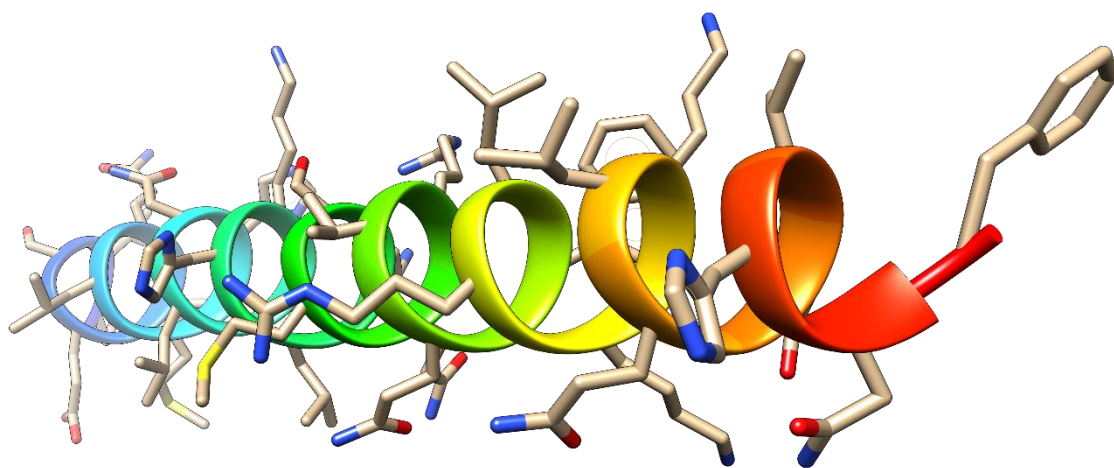


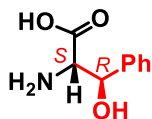
# ACTIVE PEPTIDE MANUFACTURE

Custom peptide manufacture at  
HAMARI PFST, Ltd. — Chitose Site



Hamari Chemicals, Ltd.

## Our Peptide Service Strategy



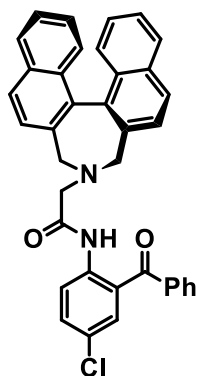
**cGMP**  
**Peptide API**

**High Yield,  
High Purity  
Peptide Synthesis  
Technology**

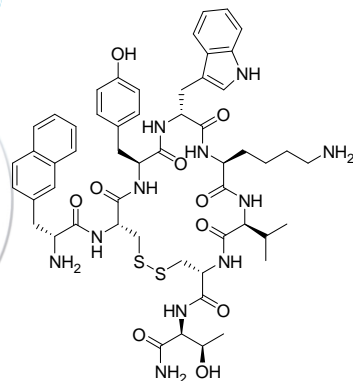
**World's Leader  
in Tailor-Made  
Amino Acid  
and Peptide  
Synthesis!**

## Global Regulatory Filing Experience and Support

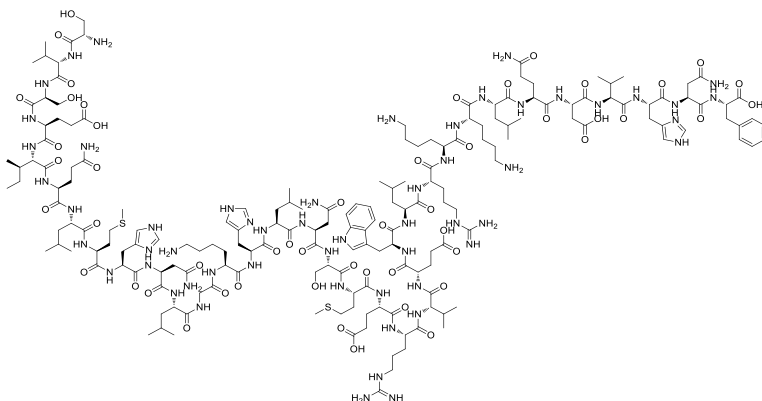
## High Potency Peptide API Manufacture



**(R)-BCCN**



Taking advantage of our unique strengths in tailor-made amino acid and peptide synthesis technologies, we provide high quality peptide manufacture and their regulatory cGMP support.



# Peptide Manufacture Facility

Since 2015, peptide manufacture at HAMARI PFST, Ltd. Chitose Site is carried out in a clean area (Class C, ISO 7) under strict cGMP control. Although maximum capability is dependent on molecular size, we can produce roughly 3000 g per year. SPPS and our manufacture know-hows made it possible to synthesize long peptides (i.e. 10 to 30-mers), cyclic peptides, and conjugates. Our combination of process R&D (Osaka) and manufacture operation (Chitose) work effectively to supply you with large quantities of peptides.



## Hamari's Advantages in Peptide Manufacture

### 1. A long history of success

We have extensive manufacture experience using liquid-phase synthesis and solid-phase synthesizers to provide optimal production for short to long chain peptides. We can provide high quality peptide drugs at your requested scale from preclinical to commercial scales.

### 2. Supplier of tailor-made amino acids

We provide various rare tailor-made amino acids using our patented Soloshonok-Hamari ligands. Moreover, we can also introduce several vendors who can supply the more common amino acids.

### 3. Equipment for highly active ingredients

Our final product room is equipped with a HEPA filter system with negative pressure under cGMP quality management. We handle highly active peptides such as Teriparatide.

### 4. One-on-one customer support for synthesis of reference standards

Osaka Hamari and Hamari USA have peptide synthesizers to synthesize various peptide reference standards. We respond to your inquiries promptly with an open-mind.

### 5. Support regulatory authority drug application

Our Quality Unit is here to support your CMC pharmaceutical application like IND or NDA or ANDA or MAA.

## contact information



**Hamari Chemicals, Ltd.**

International Department  
6F, 2-1-26 Kitahama, Chuou-ku, Osaka 541-0041, Japan  
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# HAMARI PFST, Ltd. — Chitose Site

Established in April 2013, HAMARI PFST, Ltd., Chitose Site is a manufacturer of active substances. The Chitose site takes advantage of its advanced development capabilities to create a production facility that surpasses environmental management and GMP quality management standards. The Chitose facility is a dedicated site for plant extract products, and high potency peptide products in separate manufacture plants.

## EQUIPMENT LIST

VESSEL	Reactor Capacity	2000	1500	1400	1000	800	750	500	300	250	100	Total
	Glass-lined	2	2	1	8		1	2	1	1	1	19
	Stainless Steel		1		2	1						4
CENTRIFUGE	Stainless Steel (30 inch, 36 inch)											
DRYER	Double Conical Dryer (Glass-lined / 880 L)											
	Tray Dryer (Stainless Steel)											
	Filter Dryer (Hastelloy Steel / 1050 L)											
Food products area	VESSEL 10 (Stainless Steel / 800 – 2000 L)											
	MILL Crusher 1 (Stainless Steel), Stone Mass-colloider 1 (Stainless Steel)											
	CONCENTRATOR Thin-film rotary evaporator 2											
	CENTRIFUGE Clarifier 1, Decanter (Settler) 1											
	STERILIZER Plate-type Sterilization 1											



## Chitose Hamari Chemicals, Ltd.

Manufacture Site	1007-81, Izumisawa Chitose, Hokkaido, 066-0051, Japan Tel.+81-6-6205-7755 Fax.+81-6-6205-7222
Founded	December 18, 2012
Representative	(Chairman) Tokiro Takami
Scope of Business	Manufacture of API, API intermediates, food products, food additives and other active Substances
ISO 14001	Certified by KHK-ISO Center since April 1, 2013
HACCP	Certified for Hokkaido HACCP since December 19, 2018.



### contact information



## Hamari Chemicals, Ltd.

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