1st Marine food hub complex designated by Ministry of Maritime Affairs and Fisheries in South Korea

Mokpo marine food industry center

Center Vision and Overview

(재)목포수산식품지원센터
Mokpo marine food-industry research center

☐ Center Vision

Mokpo marine food industry center contributes to local economy activation through marine food industry development and its job creation by developing high value added and branded marine food products using various marine resources of high quality.

☐ Overview

○ Marine food industry base complex project : 2008 ~ 2012

○ Area : Site area 14,775.7㎡ / Building area 9,737㎡

- R&D building : 119 types & 287 equipments in 3,816㎡ area
- Production building : 51 types & 66 equipments . 18 types of production facilities in 5,921㎡ area

○ Total project cost : 20 million USD

History

(재)목포수산식품지원센터
Mokpo marine food-industry research center

□ History

○ ‘07. 3 : **Mokpo marine food industry center was designated the 1st Marine food industry base complex project by Ministry of Maritime Affairs and Fisheries(MMAF) in South Korea.**

○ ‘10. 5 ~‘12. 6 : Mokpo marine food industry center building was built.

○ ‘13. 9 ~ ‘15. 4 : Mokpo marine food industry center’s foundation was established. and R&D and production equipments was installed. Center members were employed.

○ ‘15. 6. 4 : Opening ceremony was held.

○ ’18. 5 : **Registered Jeolla-namdo marine food start-up funding center by MMAF**

○ ’20. 10 : **Registered Official Analytical center by KFDA second in JeollaNamdo.**

○ ‘21. 10 : **Mokpo marine food industry center was awarded as only excellent case of local economy activation from Presidential committee for balanced national development**.

Organization and Resources

(재)목포수산식품지원센터
Mokpo marine food-industry research center

□ Current organization

○ Total no. of employees 23 persons / current 19 persons

- Chairman (Mayor of Mokpo city), Director and 12 advisory committee members

□ Core Competencies

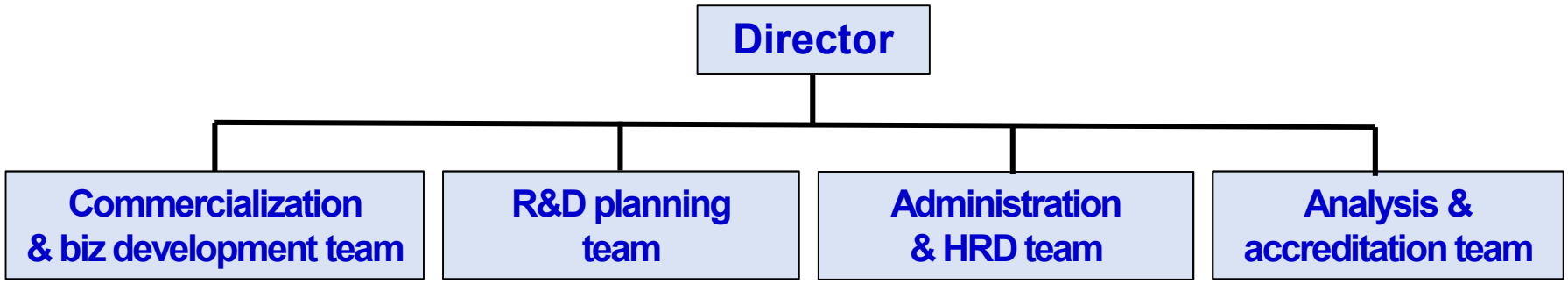
○ Growing to be the best & standard marine food industry hub in South Korea

○ External funding operation capability by conducting various National projects successfully

○ Long standing and strong network from public as well as private sector

○ Excellent human resource suitable for Research &Business development

- 4 Ph.D's & 4 Master's degrees from the relevant majors including National food engineer



Key Performances

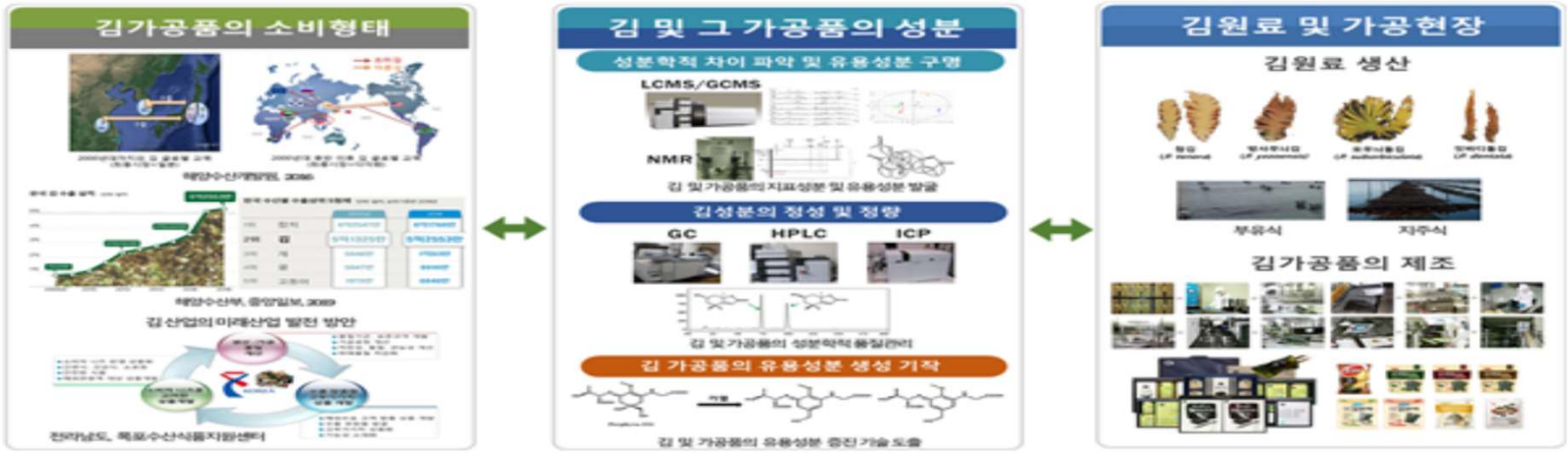
(재)목포수산식품지원센터
Mokpo marine food-industry research center

○ Marine food industry infrastructure enhancement project (Corporate support)

Performance index	Target	Performance	Achievement rate
No. of new employees	14	135	946%↑
No. of new market development	4	28	700%↑
No. of new product development	10	13	130%↑
Beneficiaries' local sales increase (USD)	2.3 million	5.2 million	235%↑
Beneficiaries' export sales increase (USD)	1.2 million	1.5 million	127%↑

○ Marine food industry infrastructure enhancement project

- Quality standardization & safety evaluation of local seaweed for Corporate ESG management



Key Performances

(재)목포수산식품지원센터
Mokpo marine food-industry research center

○ **Mokpo fish cake globalization project by constructing a smart HACCP factory**

- Healthy and functional protein foods from the local marine materials by state-of-the-art facilities




Major papers

(재)목포수산식품지원센터
Mokpo marine food-industry research center

Key Performances

(재)목포수산식품지원센터
Mokpo marine food-industry research center

○ **Scientific paper(122), Patent (34), Marine food technoloy transfer(8)**

※ Published 6 Scientific paper within JCR(Jounal Citation Reports) upper 5%

No.	Subject
1	Effects of various drying methods on physicochemical characteristics and textural features of yellow croaker, Foods (2020)
2	Protective effects of methoxsalen supplementation on chronic alcohol-induced osteopenia and steatosis in rats, Molecules (2020)
3	Defatted Tenebrio molitor Larva Fermentation extract modifies steatosis, inflammation and intestinal microflora in chronic alcohol-fed rats. Nutrients (2020)
4	Monitoring of energy metabolism by orgnic acid profiling analysis in plasma of type 2 diabetic mice, Current metabolomic and system biology (2019)
5	Methoxsalen and bergapten prevent diabetes-induced osteoporosis by the suppression of osteoclastogenic gene expression in mice, International journal of molecular sciences (2019)
6	Gentiopicroside isolated from Gentiana scabra Bge. inhibits adipogenesis in 3T3-L1 cells and reduces body weight in diet-induced obese mice, Bioorganic & Medicinal Chemistry Letters (2019)
7	Heshouwu (Polygonum multiflorum Thunb.) extract attenuates bone loss in diabetic mice, Prev Nutr Food Sci (2019)
8	Effects of harvest time on phytochemical constituents and biological activities of panax ginseng berry extracts. Molecules (2020)
9	Suppression of PMA-induced human fibrosarcoma HT-1080 invasion and metastasis by kahweol via inhibiting Akt/JNK1/2/p38 MAPK signal pathway and NF-κB dependent transcriptional activities. Food Chem Toxicol (2019)
10	Heshouwu(Polygonum multiflorum Thunb.) ethanol extract suppresses pre-adipocytes differentiation in 3T3-L1 cells and adiposity in obese mice, Biomedicine & Pharmacotherapy (2018)

Key Performances

(재)목포수산식품지원센터
Mokpo marine food-industry research center

○ **Scientific paper(122), Patent (34), Marine food technoloy transfer(8)**

※ Published 6 Scientific paper within JCR(Jounal Citation Reports) upper 5%

No.	Subject
11	A small-molecule inhibitor targeting the AURKC-IκBα interaction decreases transformed growth of MDA-MB-231 breast cancer cells. Oncotarget (2017)
12	Protective effect of rutaecarpine against t-BHP-induced hepatotoxicity by upregulating antioxidant enzymes via the CaMKII-Akt and Nrf2/ARE pathways. Food Chem Toxicol (2017)
13	Inhibitory effects of l-theanine on airway inflammation in ovalbumin-induced allergic asthma. Food Chem Toxicol (2017)
14	Capsaicin Inhibits Dimethylnitrosamine-Induced Hepatic Fibrosis by Inhibiting the TGF-β1/Smad Pathway via Peroxisome Proliferator-Activated Receptor Gamma Activation . J Agric Food Chem. (2017)
15	Saponins from the roots of Platycodon grandiflorum ameliorate high fat diet-induced non-alcoholic steatohepatitis. Biomed Pharmacother (2017)
16	Scopolin Supplementation Ameliorates Steatosis and Inflammation in Diabetic Mice. Phytother Res. (2017)
17	Anti-obesity and anti-hepatosteatosis effects of dietary scopoletin in high-fat diet fed mice. Journal of Functional Foods. (2016)
18	Anti-adipogenic and anti-diabetic effects of cis-3',4'- diisovalerylkhellactone isolated from Peucedanum japonicum Thunb. leaves in vitro. Bioorg Med Chem Lett. (2016)
19	Anti-steatotic and anti-inflammatory roles of syringic acid in high fat diet-induced obese mice. Food Funct (2016)
20	Betulinic Acid Increases eNOS Phosphorylation and NO Synthesis via the Calcium-Signaling Pathway. J Agric Food Chem.(2016)

Major patents

(재)목포수산식품지원센터
Mokpo marine food-industry research center

Key Performances

(재)목포수산식품지원센터
Mokpo marine food-industry research center

○ **Scientific paper(122), Patent (34), Marine food technoloy transfer(8)**

※ Published 6 Scientific paper within JCR(Jounal Citation Reports) upper 5%

No.	Patent no.	Issue date	Subject
1	PCT/KR2019/010853	2019.8	Phamaceutical composition Porphyra dentata Kjellman extract for skin regeneration
2	10-1736691	2017.5.	Dried Croaker using barley extract and manufacturing method thereof
3	10-1907781	2018.10.	Dried Croaker using barley extract and manufacturing method thereof
4	10-1923813	2018.11.	Liguefied seasoning, product method of liquefied seasoning
5	10-1923814	2018.11.	Natural seasoning for powder using fermented seafood and its preparation method
6	10-1981428	2019.5.	Phamaceutical composition Porphyra dentata Kjellman extract for skin regeneration
7	10-2021263	2019.9	Phamaceutical composition Porphyra dentata Kjellman extract for skin regeneration
8	10-2021264	2019.9	Phamaceutical composition Porphyra dentata Kjellman extract for skin regeneration17

Current major projects

(재)목포수산식품지원센터
Mokpo marine food-industry research center

□ Marine food industry infrastructure enhancement project

○ Period : 2022.

○ Cost : 1.2 million usd

○ Contents :

1) Marine food industry activation by supporting product R&D technology and start-up incubation

2) National accredition of 1st professional seaweed industry center by Ministry of Maritime Affairs and Fisheries in South Korea

□ Mokpo fish cake globaliization & local economy activation project

○ Period : 2021. ~ 2023.

○ Cost : 8 million usd

○ Contents : Healthy and functional protein foods from the local marine materials by state-of-the-art facilities

Current major projects

(재)목포수산식품지원센터
Mokpo marine food-industry research center

□ Jeolla-namdo marine food start-up funding center project

○ Period : 2022.

○ Cost : 1.3 million usd

○ Contents : Discovering and supporting marine food company with huge potential

□ Official F&B analysis center operation project accredited by KFDA

○ Period : 2020. ~ 2023.

○ Items : Food (Official physico-chemical & microbiological & texture analysis)

○ Contents :

1) Official analysis, QC & QA of HACCP manual support of marine food corporation

2) Quality standardization and Safety evaluation of raw marine materials and food products

낭만항구 목포
ROMANTIC PORT MOKPO

THANK YOU