学会/受賞報告書

42nd Annual Meeting of the American Pancreatic Association
Young Investigator Travel Award 受　賞

消化器外科学分野　大学院 4年生
高舘　達之

2011年11月2日～5日にシカゴで開催された42nd Annual Meeting of the American Pancreatic AssociationにおいてYoung Investigators Travel Awardに採択していただき、大変光栄に思います。本研究を行うに際しまして、御指導頂きました、小野川徹先生、海野倫明教授、江川新一准教授ならびに消化器外科学分野の方々に心より感謝申し上げます。
私は、当科に大量に保存されている手術標本のホルマリン固定パラフィン包埋(FFPE)組織を用いて、質量分析を基盤としたプロテオーム解析により、膵癌の予後改善に貢献しうる、最適な治療選択のための予後マーカーや治療ターゲットとなりうるタンパク質を探索してきました。これまでにレトロスペクティブな検討で、その発現と予後に有意な相関を認める数種類のタンパク質を同定しており、本学会ではその成果を発表しました。
本受賞を励みとして、より一層精進してまいりたいと思いますので、今後とも御指導御鞭撻の程宜しくお願い致します。

受賞研究：

Proteomic Forecast of Postoperative Prognosis of Pancreatic Cancer using Formalin-Fixed Paraffin-Embedded Tissue.

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抄録：

Background and Aims: This study aimed to identify the novel prognostic biomarker using mass spectrometry (MS)-based proteomic analysis with formalin-fixed paraffin-embedded (FFPE) tissue. **Patients and methods:** The two groups with poor prognosis (n=4) and with better prognosis (n=4) had been carefully chosen among 96 resected cases of pancreatic cancer during 1998 to 2007 in Tohoku University Hospital. Although those 2 groups had adjusted background (UICC-Stage IIB, Grade2, R0, gemcitabine adjuvant), there was a significant difference in postoperative mean survival time (poor 21.0M, better 67.0M, $P<0.05$). Cancerous cells collected from FFPE tissue by laser microdissection were processed for liquid chromatography/MS. Furthermore, identified proteins were validated by the selective reaction monitoring (SRM) quantitative analysis and immunohistochemical analysis. **Results:** Totally 1,229 proteins were identified and 170 candidate proteins selected by semi-quantitative comparison were verified by SRM. In result, we identified 18 proteins overexpressed in poor prognostic group. These proteins were validated in 96 cases by immunohistochemical analysis. **Discussion:** Adjusting background, we could clarify the target molecules related with biological aggressiveness. These candidate proteins include the molecules that play a role in adhesion and migration of cells and progression of cell cycle. Validation in the larger cohort can elucidate the practical prognostic markers. **Conclusion:** We identified the 18 candidate postoperative prognostic biomarkers for pancreatic cancer.