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# 放射線診断学講座

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## 【研究プロジェクト名および概要】

### I. 中枢神経疾患の研究

ディープラーニングMRI再構成技術の臨床応用  
非造影MRI arterial spin labelingによる脳血流評価  
脳腫瘍のMRI灌流イメージング  
脳血管障害のCT脳灌流イメージング

### II. 人工知能応用画像診断の研究

CT/MR画像を用いた機械学習による腫瘍遺伝子変異の予測  
ディープラーニング画像再構成の臨床応用  
ディープラーニングによる画像診断精度向上の検証  
ディープラーニングを用いた心拍動補正技術に関する検討

### III. 先端循環器画像診断技術の研究

心臓CTによる心筋性状評価の研究  
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心臓MRIのマルチパラメトリックマッピングの臨床応用  
肺高血圧症の画像バイオマーカーの研究  
構造的な疾患の画像診断手法の最適化に関する研究

### IV. デュアルエナジーCTの研究

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ヨード密度画像による細胞外容積分画解析  
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### V. 小児CTにおけるX線被ばく低減の研究

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ディープラーニング画像再構成によるX線被ばく低減  
体動を補正するディープラーニング再構成技術の開発と小児CT被ばく低減への応用

### VI. 核医学検査の臨床的研究

心アミロイドーシスにおける冠微小循環障害の定量評価  
分子イメージングバイオマーカーに基づくアミロイドーシスの病勢評価モデルの構築  
177Lu-PSMA-617ラジオリガンド治療効果予測モデルの開発  
ペプチド受容体放射線核種療法の治療効果予測モデルの開発

### VII. 腹部画像診断に関する研究

CTによる肝線維化および肝予備能・再生能の定量化に関する研究  
副腎腫瘍の診断技術開発  
膵癌の早期診断と予後予測に関する研究  
多核種MRIの臨床応用に関する研究

### VIII. 消化管内視鏡の臨床的研究

術前CT colonographyに関する研究  
炎症性腸疾患におけるMR enterographyに関する研究

### IX. 悪性腫瘍及び血管性病変の低侵襲治療の研究

肺動静脈瘻の塞栓術に関する研究  
大動脈ステント留置後のType2エンドリークに対する塞栓術に関する研究  
腎細胞癌に対する凍結療法に関する研究  
IVR専門医育成におけるリアルタイム遠隔指導法の安全性と有効性の検討  
腎脈管筋脂肪腫に対する経動脈塞栓術に関する研究

### X. 造影剤安全性に関する研究

造影剤アレルギーのリスク因子に関する検討  
造影剤副作用低減法の開発

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研究の統括  
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**R7年度業績**

【原著】

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