

研究合作意向书

Letter of Intent for Research Collaboration

项目：基于脑机接口的抑郁症评估与干预研究
Project: BCI-Based Depression Assessment & Intervention

本意向书由 AI Player in Gothenburg (Aika Lab, 以下简称“甲方”) 与有意参与本研究合作的大学或研究机构 (以下简称“乙方”) 签署, 旨在就基于脑机接口 (BCI) 的抑郁症评估与神经调控干预研究建立合作框架。

This Letter of Intent is entered into by AI Player in Gothenburg (Aika Lab, "Party A") and the university or research institution intending to participate ("Party B"), to establish a cooperation framework for BCI-based depression assessment and neuromodulation intervention research.

第一条 项目背景与目标

Article I — Project Background & Objectives

抑郁症是全球疾病负担最重的精神障碍之一, 现有诊断方式主要依赖主观量表评估, 客观生物标记物的缺乏制约了早期识别和精准干预。Aika Lab 基于神经动力学研究, 开发了一套通过脑机接口实时采集和分析脑电特征的算法体系, 能够识别与抑郁相关的神经振荡模式异常, 并通过神经声学调控实施针对性的非侵入式干预。

Depression is one of the most burdensome mental disorders globally. Current diagnostic approaches rely predominantly on subjective scale assessments, with the lack of objective biomarkers constraining early identification and precision intervention. Leveraging its neurodynamics research, Aika Lab has developed an algorithm system that captures and analyzes EEG features in real time via BCI, identifying depression-related neural oscillation abnormalities and delivering targeted non-invasive intervention through neuroacoustic modulation.

本项目旨在: (1) 建立基于 BCI 脑电特征的抑郁症客观评估模型; (2) 验证神经声学调控在缓解抑郁症状方面的有效性与安全性; (3) 探索个性化调控方案的优化路径。

This project aims to: (1) establish an objective depression assessment model based on BCI-derived EEG features; (2) validate the efficacy and safety of neuroacoustic modulation in alleviating depressive symptoms; (3) explore optimization pathways for individualized modulation protocols.

第二条 合作模式与各方职责

Article II — Cooperation Model & Responsibilities

甲方 (Aika Lab) 职责:

Party A (Aika Lab) Responsibilities:

- 向乙方无偿提供加密的抑郁症评估算法及神经声学调控算法，专用于本项目科研活动；
 - 提供脑电特征提取与分类的技术支持，协助构建评估模型；
 - 提供算法部署培训及持续技术支持；
 - 协助实验方案设计，提供神经调控参数优化建议。
- Provide Party B, free of charge, with encrypted depression assessment algorithms and neuroacoustic modulation algorithms exclusively for research under this project;
 - Provide technical support for EEG feature extraction and classification to assist in building the assessment model;
 - Provide algorithm deployment training and ongoing technical support;
 - Assist in experimental design and provide neuromodulation parameter optimization recommendations.

乙方（大学/研究机构）职责：

Party B (University/Research Institution) Responsibilities:

- 提供符合精神科研究伦理要求的临床实验环境、专业设备及受试者招募（含对照组）；
 - 负责申请并获取伦理审查批准（IRB/EC），确保研究符合《赫尔辛基宣言》及相关法规；
 - 配备具有精神科或临床心理学资质的研究人员参与实验；
 - 按照实验方案规范化采集数据，定期提交进展报告。
- Provide clinical experiment environments, specialized equipment, and participant recruitment (including control groups) in compliance with psychiatric research ethics;
 - Apply for and obtain ethical review approvals (IRB/EC), ensuring compliance with the Declaration of Helsinki and relevant regulations;
 - Assign qualified psychiatric or clinical psychology researchers to participate in experiments;
 - Collect data per standardized protocols and submit periodic progress reports.

第三条 知识产权与成果归属

Article 三 Intellectual Property & Ownership of Results

- 甲方提供的评估算法与调控算法的知识产权完全归甲方所有；
 - 合作中建立的抑郁症评估模型、临床数据集及研究发现由双方共同享有；
 - 衍生知识产权根据贡献比例协商归属；
 - 学术发表须经双方书面同意，涉及算法技术细节的内容须经甲方审核。
- IP rights of the assessment and modulation algorithms provided by Party A shall remain exclusively with Party A;
 - The depression assessment model, clinical datasets, and research findings shall be jointly owned;
 - Derivative IP shall be allocated based on respective contributions;
 - Academic publications require prior written consent from both parties; content involving algorithm technical details must be reviewed by Party A.

第四条 伦理与安全要求

Article 四 Ethical & Safety Requirements

鉴于本项目涉及精神障碍患者群体，双方特别约定：所有研究活动须严格遵守国际及当地伦理规范；受试者的知情同意须充分、透明；实验过程中如发现任何不良反应或安全隐患，须立即暂停实验并通报双方；受试者数据须匿名化处理，确保隐私保护。

Given that this project involves participants with mental health conditions, both parties specifically agree: all research activities must strictly comply with international and local ethical standards; informed consent of participants must be thorough and transparent; any adverse reactions or safety concerns discovered during experiments shall result in immediate suspension and notification to both parties; participant data must be anonymized to ensure privacy protection.

第五条 成果商业化

Article 五 Commercialization of Results

合作研究成果面向商业用户的转化（包括但不限于抑郁症筛查工具、数字疗法产品的有偿转让或使用授权）由甲方主导推进。商业化收益分配在正式协议中约定。乙方在同等条件下享有优先合作权。

Commercialization of collaborative outputs (including but not limited to depression screening tools, digital therapy products, paid licensing or usage authorization) shall be led by Party A. Revenue distribution shall be stipulated in the formal agreement. Party B shall have right of first refusal under equivalent terms.

第六条 保密义务

Article 六 Confidentiality

双方对合作中接触的保密信息负有严格保密义务，保密期限为五（5）年，合作终止后仍然有效。涉及受试者个人信息的保密义务不受时间限制。

Both parties shall maintain strict confidentiality for five (5) years, surviving termination. Confidentiality obligations regarding participant personal information shall be unlimited in duration.

第七条 合作期限与终止

Article 七 Term & Termination

本意向书有效期为两（2）年。双方应在签署后九十（90）日内完成正式协议的签署。任何一方可提前三十（30）日书面通知终止，已开展的研究及保密义务不受影响。

This LOI is valid for two (2) years. Both parties shall execute the formal agreement within ninety (90) days. Either party may terminate with thirty (30) days' written notice; ongoing research and confidentiality obligations remain unaffected.

第八条 法律性质与适用法律

Article 八 Legal Nature & Governing Law

本意向书除保密及伦理条款外不构成法律约束力合同。适用瑞典王国法律，争议提交哥德堡有管辖权的法院裁决。本意向书中英文版本同等效力，如有歧义以中文为准。一式四份，双方各执两份。

This LOI does not constitute a legally binding contract except for confidentiality and ethics provisions. Governed by the laws of the Kingdom of Sweden; disputes shall be submitted to the competent court in Gothenburg. Both Chinese and English versions have equal validity; Chinese prevails in case of discrepancy. Executed in four counterparts, two for each party.

甲方 / Party A (Aika Lab)

乙方 / Party B

机构名称 / Institution:

AI Player in Gothenburg (Aika Lab)

机构名称 / Institution:

授权代表 / Authorized Rep.:

授权代表 / Authorized Rep.:

签字 / Signature:

签字 / Signature:

日期 / Date:

日期 / Date:
