

## 出國報告（出國類別：開會）

# 國際流行病學學會（ISEE）2025年會 參與心得

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## 摘 要

2025年8月17日至20日於美國喬治亞州亞特蘭大舉行「2025年國際環境流行病學學會年會（International Society for Environmental Epidemiology, ISEE 2025）」，會議主題涵蓋環境化學物暴露、職業健康危害、人工智慧於環境醫學之應用、母嬰健康、移工健康議題、氣候變遷對健康影響，以及其他相關領域。

本人此次出席此會議並發表人工智慧相關主題海報「Development of a Mobile Application Utilizing Artificial Intelligence to Support the Key Indicator Method and Prevent Ergonomic Hazards」，介紹本院於職業與環境醫學領域與人工智慧結合的研究成果。臺中榮總在2026年再度蟬聯全球百大最佳智慧醫院，更是全國唯一入選的醫療機構，顯示本院在智慧醫療、創新研究與臨床實踐上的卓越成就。透過參與本次國際會議，不僅展現本院的專業實力與提升本院國際能見度，更進一步深化與世界各國學者的交流與合作，亦期能將最新國際新知轉化為臨床應用與本院參與公共衛生政策的支持。

## 關鍵字

人工智慧、環境流行病、職業醫學、勞工健康保護、母性保護

目次	
一、目的	4
二、過程	5
三、心得	11
四、建議事項	14
五、結語	15
六、附錄	16

## 一、目的

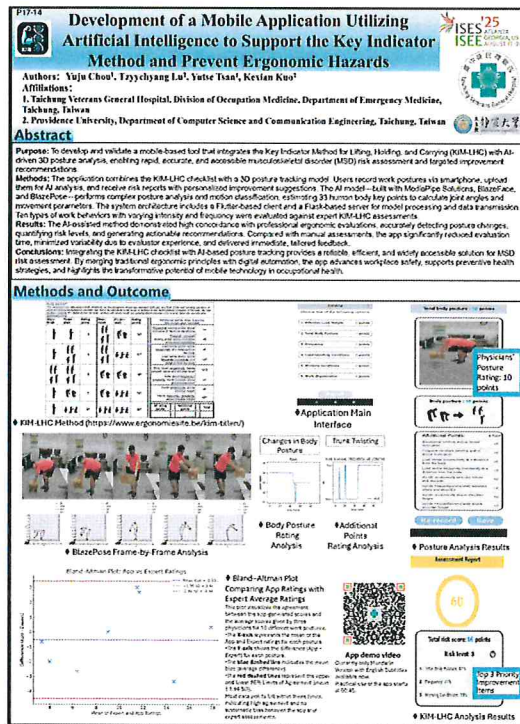
2025 年國際環境流行病學學會年會 (International Society for Environmental Epidemiology, ISEE 2025) 於 2025 年 8 月 17 日至 20 日在美國喬治亞州亞特蘭大市舉行。大會匯聚來自全球環境與職業醫學領域的頂尖研究人員與政策制定者，涵蓋主題包括環境化學物暴露、職業健康危害、人工智慧於環境醫學之應用、母嬰健康、移工健康議題、氣候變遷對健康影響等。本人有幸獲院方公費補助參與此次會議，並於 8 月 18 日擔任「Development of a Mobile Application Utilizing Artificial Intelligence to Support the Key Indicator Method and Prevent Ergonomic Hazards」海報展示講者，提高本院國際能見度並展現本院蟬聯全球百大最佳智慧醫院的 AI 相關研究成果。

本次會議除展示最新環境與職業健康研究外，亦提供國際學術人脈拓展平台，並實質促進本院醫師對先進方法（如：AI 輔助職業暴露分析、微生物群與毒物交互作用、生物標誌物應用）的理解與運用。會議期間認識的各國學者專家亦可為未來院方邀請國際學者來台演講與合作奠定人脈基礎。藉由此次參與，期望能將最新國際新知轉化為臨床應用，甚至是本院積極參與公共衛生政策、勞動部勞工健康保護四大計畫的支持。

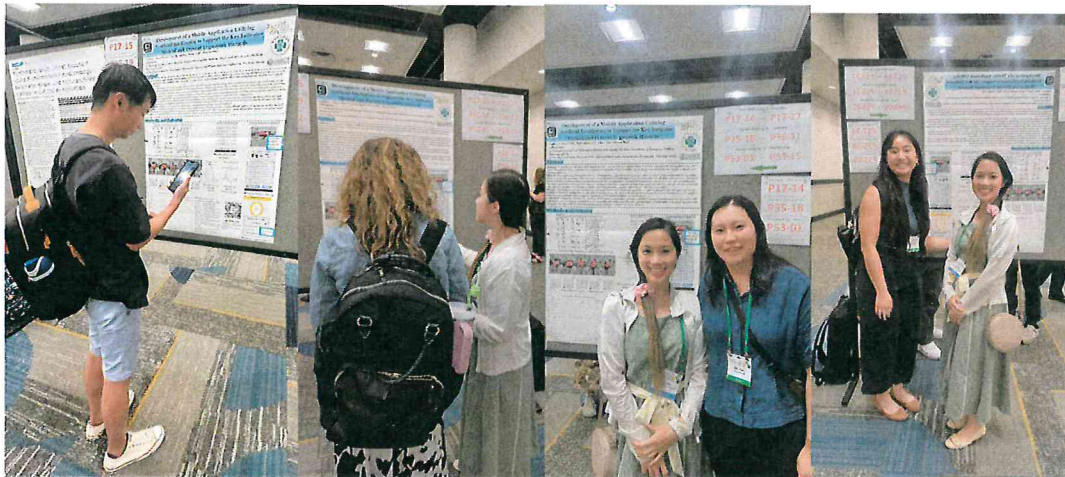
## 二、過程

### (一) 參與海報發表

1. 於 2025 年 8 月 18 日下午 3:30 - 4:15 進行 “Development of a Mobile Application Utilizing Artificial Intelligence to Support the Key Indicator Method and Prevent Ergonomic Hazards” 海報展示與現場講解，與來自不同國家的學者進行面對面交流。



發表海報右上以及 QRcode 應用本院 Logo，提升本院國際能見度與加深國際學者對本院印象。



與會者掃描海報 QR code 以及聽我講解的現場情形

2. 在會期其他海報展示時段參觀感興趣主題之海報，並與作者進行交流討論：

(1) 2025年8月18日上午

- Effects of environment on the double and triple burdens of infections among under-five children across low-middle-income countries: Machine Learning Algorithms  
H. M. Fental

- Hormonal Risks of Early Adolescence Makeup Usage: Preliminary Results from HERSAFE  
S. González'

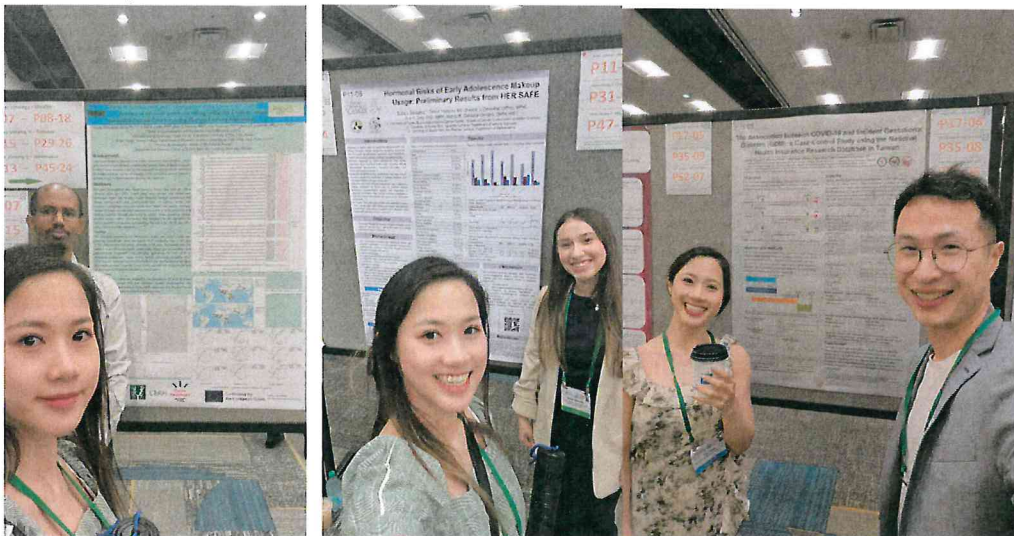
(2) 2025年8月19日下午

- The impacts of carrying and transporting weights by hands or shoulder-backpacking on thermoregulation and muscle fatigue when walking on stairs  
Y.-C. Lai",

- Air pollution, temperature, and HbA1c levels among children in Mexico City, Mexico.  
J. Wul

- A Perspective of Childhood Diarrhea Risk and Climate Dynamics from East Java Province, Indonesia  
G. Andhikaputral

- The Association between COVID-19 and Incident Gestational Diabetes: A Case-Control Study using the National Health Insurance Research Database in Taiwan  
L.-Y. Lin!



(二) 參與各項感興趣的學術演講主題

1. 出席多場專題演講，吸收國際學界對環境流行病學與職業健康的最新觀點。

(1) 2025/8/17 (週日)

專題：環境化學物與微生物群：交互作用與影響機制 (S08)

- Timing Matters: Windows of Susceptibility for Gut Microbiome Development
- Interpretable machine learning models to identify microbial cliques
- Early-Life Metal Exposure and Childhood Cognition: The Role of the Oral Microbiome in Neurological Outcomes
- Does Human Milk PFAS Exposure Affect Infant Gut Microbes? Insights from a US Cohort (#683)
- Understanding the impact of PFAS mixtures on the gut microbiome using novel Bayesian hierarchical methods

(2) 2025/8/18 (週一)

專題：人工智慧與倫理：在環境健康與流行病學中的利與弊 (S09)

- AI and Environmental Epidemiology: Where are we going and how are we getting there?
- Ethical Issues with Using Artificial Intelligence for Peer Review of Manuscripts - An Editor's Perspective
- When is AI "appropriate" for use by Epidemiology students or faculty?
- AI in Academic Research: Opportunities and Barriers for Bangladeshi Students
- Opportunities, challenges and ethical considerations of artificial intelligence in environmental health: Perspectives from Africa

專題：孕期暴露於內分泌干擾物與美國 ECHO 世代計畫中母嬰健康 (S14)

- Variability of non-persistent chemicals in urine samples across multiple time-points during pregnancy in the ECHO Cohort
- Diet quality and maternal pregnancy exposure to legacy and understudied endocrine disrupting chemicals in the Environmental influences on Child Health Outcomes Cohort

- Investigating Disparities in Toxic Chemical Exposures with Neurodevelopmental Effects
- Pregnancy PFAS concentrations in association with maternal depression and perceived stress during pregnancy and postpartum
- Joint effects of well-studied and understudied chemicals and psychosocial stressors on birth outcomes in the ECHO-wide cohort
- Prenatal PFAS Exposure and Pubertal Development: Insights from the ECHO Consortium

(3) 2025/8/19 (週二)

專題：推進農藥暴露評估與全球社區健康效應理解 (S19)

- The 'EIRE' study investigating neonicotinoid insecticide exposures among workers, home users and the general public.
- Household dust and urinary pesticide measures in Mexico City, Mexico
- Non-dietary personal pesticide exposure using silicone wristbands across 10 European countries
- Pesticide Exposure and Barriers to Protection among Pregnant Farmworkers in California
- Children's Home Proximity to Pesticide Spray Sites and Neurobehavioral Performance in Ecuador
- Understanding pesticide exposure in Rwanda: Identifying commonly used pesticides and their health effects

傳統口頭報告：金屬與元素暴露及健康結果 (TO21)

- Relationship between Mammographic Density and Arsenic among a Rural Population
- Associations of pre- and postnatal exposure to three heavy metals with visual impairment in 3-year-old children: Korean Children's Environmental Health Study
- TO21-03 - Sex-specific urinary metal mixture effects on insulin resistance in Afro-Caribbean adults: A cross-sectional analysis in the Tobago Health Study
- Association between urinary metals concentrations in Gulf War veterans and Gulf War Illness and cognitive outcomes
- Trends in blood lead levels and cardiovascular disease mortality: the National Health and Nutrition Examination Survey (NHANES)
- Early Childhood Blood Lead Concentrations and Depressive and Anxiety Symptoms in Adolescence: The HOME Study

- Metal exposures and kidney function among adolescents in Nicaragua at risk of Chronic Kidney Disease of Uncertain Etiology (CKDu)

(4) 2025/8/20 (週三)

專題：熱與腎臟的連結：不同人群中的風險、反應與機制 (TO38)

- Evaluating Impacts of Heat on Body Temperature and Kidney Function Across the Sugarcane Harvest Season
- Occupational Heat and Kidney Function Decline
- Variety of climates in Australian major cities and their impact on patients receiving kidney replacement therapy
- Heat-Induced Acute Kidney Injury in Agricultural Workers: Mechanisms, Risk Factors, and Protective Adaptations
- Heat Stress Exposure in Association with DNA Methylation and Kidney-related Health Outcomes
- Ambient temperature and estimated glomerular filtration rate (eGFR) among US veterans with normal baseline kidney function

快閃演講：母嬰化學暴露 (FT21)

- Gestational Phthalates Exposure and High-Throughput Protein Profiles during Pregnancy
- Prenatal exposure to mixtures of non-persistent endocrine-disrupting chemicals and fetal growth, fetoplacental hemodynamics, and angiogenic biomarkers
- Identifying Dietary Predictors of Per- and Polyfluoroalkyl Substances in Pregnancy Using Supervised Mixtures Methods



(三) 參與學會舉辦的社交活動

1. 於 2025/8/18 New Attendee Gathering 活動中，認識許多可以相互鼓勵、交流的年輕

研究者；此外，該場次更有幸認識了坐在我身旁的 ISEE 現任會長 Nelson Gouveia 教授，其對本院運用人工智慧結合醫療與職場的研究表達有趣。



2. 在於亞特蘭大水族館舉行的學會晚餐認識了來自美國、南美洲及香港的學者。



### 三、心得

此次參加 ISEE 2025 年會，最令我收穫良多的部分，即是能在短短數天內接觸到來自世界各地學者的多場專題演講。此次會程讓我對於人工智慧在環境健康與流行病學中的應用，以及職業醫學相關的化學性、物理性、人因性危害以及母性保護上，有更深入且最前沿的認知

#### ● 人工智慧：

這次會議中，S09 場次與我張貼的人工智慧輔助姿勢風險評估研究之間，展現了人工智慧（AI）在環境健康與流行病學的多元應用。S09 多篇報告探討如何利用 AI 與機器學習模型，處理龐大的環境監測與健康資料，提升暴露預測、疾病風險分層及多重污染物交互作用的解析度。而我發表的學術海報則聚焦於職場人體工學，透過 AI 姿勢辨識結合 KIM 指標法，提供即時、客觀的風險評估與改善建議，避免主觀誤差。AI 不僅能支援大規模的流行病學數據分析，也能前往第一線做職場安全管理。未來，AI 在環境健康領域的潛力將在於跨資料源整合與早期預警系統的發展，協助政策制定與個人化健康防護。

#### ● 物理性危害－熱暴露

TO38 專題深入探討了農業與建築等戶外職場中，高氣溫引發之急性腎損傷、熱中暑與熱壓力對生理指標的影響，並結合現場實測、生理紀錄、流行病學問卷與氣象資料，指出如高溫暴露時間、缺乏適當休息、與低電解質補充，均可能大幅提升職災風險。這些研究成果與我國《高氣溫作業熱危害預防指引》中的制度相呼應，例如針對重體力作業建議每小時至少 20 分鐘休息、設置遮陽設施與補充電解質飲料的規範。然而，相較於 TO38 所呈現的多樣研究工具與跨國合作研究、長期健康監測（如腎功能檢測）以及針對高風險勞工的醫療介入、精準暴露評估（穿戴式感測器），顯示我國實務上仍有學習空間。目前高溫作業特殊檢查已涵蓋腎功能項目，未來期待對同樣高風險的農業從事者亦實施定期腎功能檢測。

#### ● 化學性危害-農藥中毒：

根據 S19 六篇研究可發現，農藥暴露在全球各地普遍存在於農民、兒童與一般民眾生活中，並與腎功能損傷、神經發展遲緩及健康風險密切相關。研究揭示暴露來源包括居家塵埃、寵物跳蚤藥、工作環境與鄰近農地，且多數暴露族群缺乏足夠防護知識與制度支持。台灣《農民職業災害保險職業傷病審查辦法》中的職業病亦已將農藥中毒納入，顯示台灣與國際同樣重視農業工作者的農藥暴露問題，然而畜牧業者或寵物相關勞工暴露於跳蚤藥的風險在國內似乎缺乏重視，或可為後續職業安全衛生研究方向。

- 化學性危害-金屬暴露：

TO21 系列深入探討多種常見職場化學物質（如甲醛、鉛、苯、甲苯二異氰酸酯等）對人體健康的影響，並以精密的分子生物技術與職業衛生方法，呈現了多樣而具體的健康風險。TO21-01 與 TO21-02 闡述甲醛與鉛暴露對 DNA 傷害與免疫系統的影響，顯示即使低劑量也可能造成潛在風險。TO21-03 探討石棉暴露相關的間皮瘤風險，對我國仍處理石棉建材的場域有警示意義。TO21-04 至 TO21-06 則針對多環芳香烴與異氰酸酯等呼吸道致敏物質，提出了職業性哮喘與生物標誌物的關聯。最後，TO21-07 結合臨床過敏反應與免疫檢測，實證了苯暴露與過敏性體質的關聯性。整體而言，此系列研究不僅證實了傳統職業病的分子機轉，也推動以生物標記為基礎的風險評估模式，對現行健檢制度與危害認定制度具高度參考價值。這些研究提供我個人在臨床與研究上對化學危害更全面的理解，對未來推動職場預防醫學有所幫助。

- 母性保護：

本次 ISEE 會議的 S14、FT21、S08 與 S19 場次均凸顯孕婦與兒童暴露於環境化學物的高度敏感性，以及其對母體、胎兒與兒童長期健康的影響。S14 強調非持久性內分泌干擾物（Endocrine-Disrupting Chemicals, EDCs）與全氟與多氟烷基物質（Per- and Polyfluoroalkyl Substances, PFAS）暴露與胎盤血流異常、胎兒生長限制、孕婦憂鬱壓力以及青春期發育差異有關；FT21 延伸指出飲食、職場與家居來源（如阻燃劑、對羥基苯甲酸酯 Parabens、尿布化學物）同樣是母嬰期重要的暴露途徑，甚至在 PCB 已禁用二十年後仍可於新生兒臍帶血中檢出，凸顯跨世代與持久性影響。在 S08 場次中，研究顯示孕期金屬暴露不僅透過胎盤直接影響胎兒，還可能經由改變口腔微生物群組成而影響兒童神經發展與認知；另有研究發現母乳中的 PFAS 暴露會導致嬰兒腸道菌群失衡，包括有益菌減少與致病菌增加，提示哺乳期也是高風險窗口。S19 的研究則從勞動健康角度切入，加州孕期農場工人雖普遍暴露於農藥，但因語言、法律地位與工作條件而難以落實個人防護，顯示職場中仍存在結構性屏障；此外，韓國兒童健康研究指出，出生前與出生後的重金屬混合暴露與三歲兒童的視覺障礙顯著相關，強調環境暴露對神經感官發展的威脅。我國現行《工作場所母性健康保護技術指引》已具備危害辨識、風險分級、醫師面談與工作調整等制度，涵蓋化學性、物理性與人因性危害。未來或可隨世界各母性危害研究更新擴大監測範疇至新興污染物（PFAS、Parabens、阻燃劑等），並考慮混合暴露效應；將母乳哺餵、飲食來源及家居用品納入風險評估；關注職場結構性障礙與弱勢族群，特別是農場與移工孕婦；強化心理社會壓力與生物暴露交互效應的研

究。整體而言，國際研究提醒我們，母性健康保護需從「工作場所」擴展至「環境—生活—社會」的整合模式，才能更全面守護母嬰健康。

#### 四、建議事項

(一) 建議未來能持續支持本院研究人員參與國際會議，以保持與國際學界同步。本次於 ISEE 會議中的 TO21、S19、S08 等主題揭示了職業暴露與健康影響的新興證據，包含如甲醛、鉛、苯等職業性暴露物與 DNA 傷害、免疫異常、過敏風險等關聯，亦展示應用高通量生物標記與微生物群分析的新趨勢。定期參與國際會議可確保本院掌握研究方向變化、工具更新與國際準則調整的第一手資訊。

(二) 可利用已初步建立的國際人脈，規劃「國際學者來院演講交流計畫」。

本次會議中本人與歐美流行病學及環境衛生專家建立初步交流，更有幸認識 ISEE 現任主席 Prof. Nelson Gouveia，為未來院方邀請國際學者來台演講與合作奠定人脈基礎。若未來有職業與環境健康、女性勞工健康、農藥、氣候變遷與空污暴露等實務議題，可期邀請相關國際學者至本院院慶等活動進行系列演講，以提升本院國際能見度與國際競爭力。

(三) 鼓勵年輕醫師於訓練期間積極投稿國際會議，培養國際學術表達能力。會期有來自多國之年輕學者展示應用 AI、機器學習於空污與微生物交互作用研究，顯示國際會議已為年輕醫師建立高度參與與發聲平台。本院可在現今提供語言與簡報指導資源的基礎上，進一步鼓勵住院醫師於專科訓練期間投稿國際期刊或海報發表。

(四) 鼓勵院內同仁運用 AI 技術於醫學領域及跨領域資源整合上的應用。會期展現 AI 模型整合衛星影像、空污監測與健康資料於 COVID-19、PM2.5 長期暴露、野火煙霧估算等應用，亦見 AI 用於多暴露預測與解釋模型的可行性。敝部主任亦致力於 AI 偵測與醫學結合的應用，未來可期望更多 AI 在醫學上包括但不限於偵測的應用。

(五) 將國際新知應用於本院積極參與公共政策修訂。

會期對於農藥、重金屬與內分泌干擾物對孕婦、與移工的影響研究，提供我國在推動職業安全衛生以及母性健康保護計畫上提供具體參照。建議可於評估實證醫學後，提升本院積極參與具前瞻性的國家政策修正。

## 五、結語


本次赴美參加 ISEE 2025 國際學術研討會，讓我有機會將研究成果與來自世界各地的專家交流，不僅加深了我對環境與職業健康最新趨勢的理解，也讓我更深刻體認到跨國合作與持續創新的重要性。會中多篇研究針對農藥暴露、金屬危害、AI 在暴露建模的應用及母嬰健康影響提出嶄新觀點，對我未來的臨床服務與研究方向提供了寶貴啟發。最後，誠摯感謝院方給予本次出席參加國際學術研討會的機會、也特別感謝榮康基金會贊助，期待未來能有更多機會代表院方參與此類的國際會議，提升臺中榮民總醫院的國際能見度及國際影響力。

六、附錄  
1. 參加證明






2. 發表之海報

P17-14



## Development of a Mobile Application Utilizing Artificial Intelligence to Support the Key Indicator Method and Prevent Ergonomic Hazards

**Authors:** Yuju Chou<sup>1</sup>, Tzyychyang Lu<sup>2</sup>, Yutse Tsan<sup>1</sup>, Kexian Kuo<sup>2</sup>

**Affiliations:**

1. Taichung Veterans General Hospital, Division of Occupation Medicine, Department of Emergency Medicine, Taichung, Taiwan
2. Providence University, Department of Computer Science and Communication Engineering, Taichung, Taiwan

**Abstract**

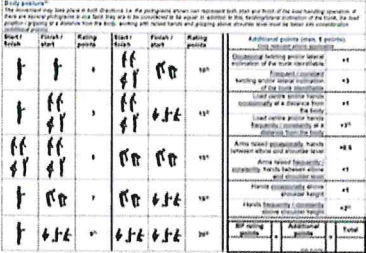
**Purpose:** To develop and validate a mobile-based tool that integrates the Key Indicator Method for Lifting, Holding, and Carrying (KIM-LHC) with AI-driven 3D posture analysis, enabling rapid, accurate, and accessible musculoskeletal disorder (MSD) risk assessment and targeted improvement recommendations.

**Methods:** The application combines the KIM-LHC checklist with a 3D posture tracking model. Users record work postures via smartphone, upload them for AI analysis, and receive risk reports with personalized improvement suggestions. The AI model—built with MediaPipe Solutions, BlazeFace, and BlazePose—performs complex posture analysis and motion classification, estimating 33 human body key points to calculate joint angles and movement parameters. The system architecture includes a Flutter-based client and a Flask-based server for model processing and data transmission. Ten types of work behaviors with varying intensity and frequency were evaluated against expert KIM-LHC assessments.

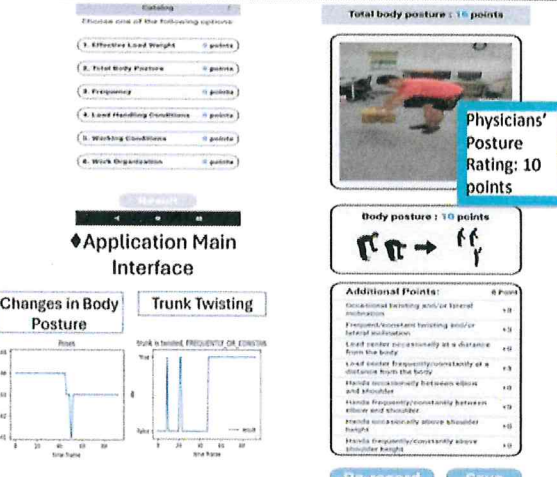
**Results:** The AI-assisted method demonstrated high concordance with professional ergonomic evaluations, accurately detecting posture changes, quantifying risk levels, and generating actionable recommendations. Compared with manual assessments, the app significantly reduced evaluation time, minimized variability due to evaluator experience, and delivered immediate, tailored feedback.

**Conclusions:** Integrating the KIM-LHC checklist with AI-based posture tracking provides a reliable, efficient, and widely accessible solution for MSD risk assessment. By merging traditional ergonomic principles with digital automation, the app advances workplace safety, supports preventive health strategies, and highlights the transformative potential of mobile technology in occupational health.

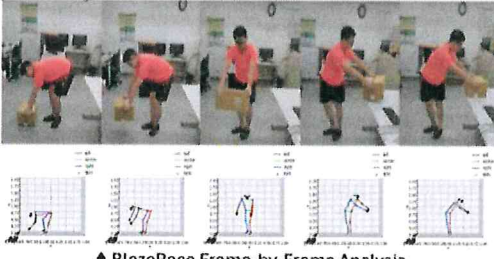
**Methods and Outcome**



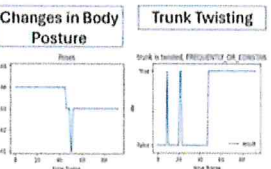
◆ KIM-LHC Method (<https://www.ergonomiesite.be/kim-tillen/>)



◆ Application Main Interface

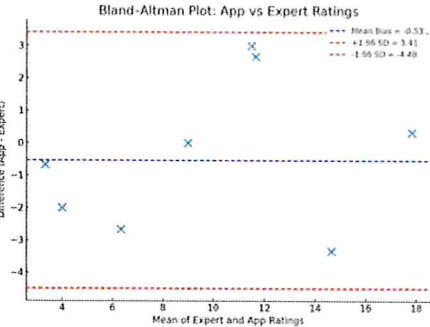


◆ BlazePose Frame-by-Frame Analysis



◆ Changes in Body Posture

◆ Trunk Twisting




◆ Bland-Altman Plot

**Comparing App Ratings with Expert Average Ratings**

This plot visualizes the agreement between the app-generated scores and the average scores given by three physicians for 10 different work postures.

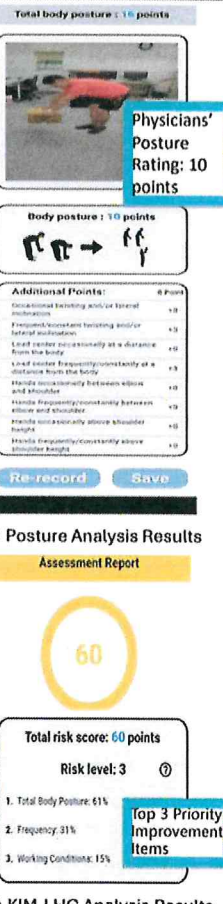
- ◆ The **X-axis** represents the mean of the App and Expert ratings for each posture.
- ◆ The **Y-axis** shows the difference (App - Expert) for each posture.
- ◆ The **blue dashed line** indicates the mean bias (average difference).
- ◆ The **red dashed lines** represent the upper and lower 95% Limits of Agreement (mean  $\pm$  1.96 SD).

Most data points fall within these limits, indicating high agreement and no systematic bias between the app and expert assessments.



◆ App demo video

Currently only Mandarin Version with English Subtitles available now. Practical use of the app starts at 00:45.

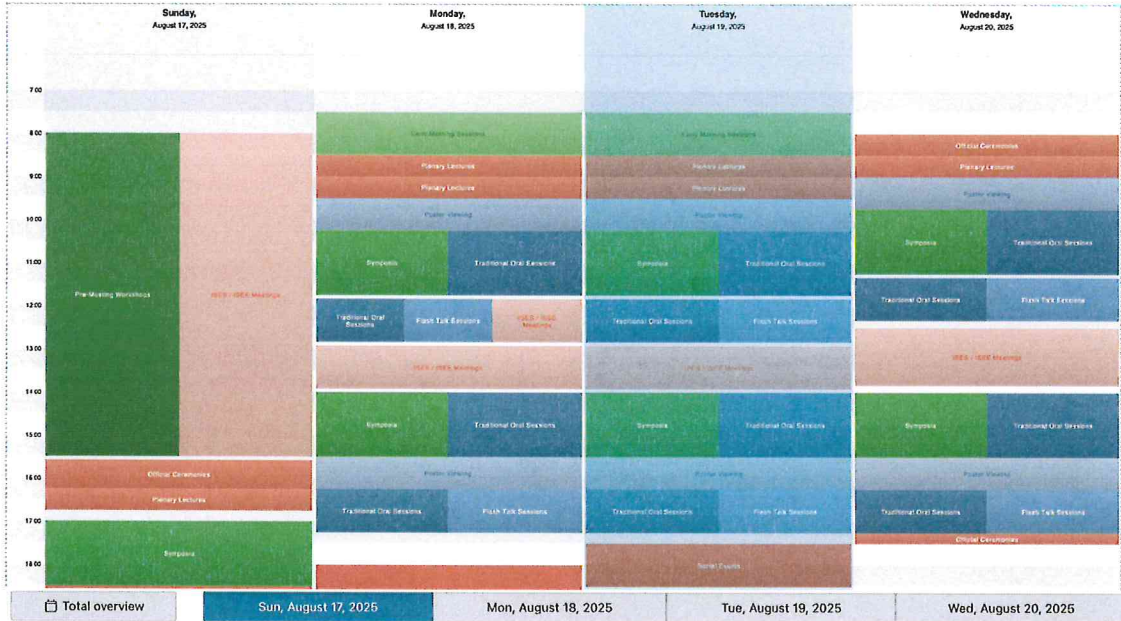


◆ Posture Analysis Results

◆ Posture Analysis Results

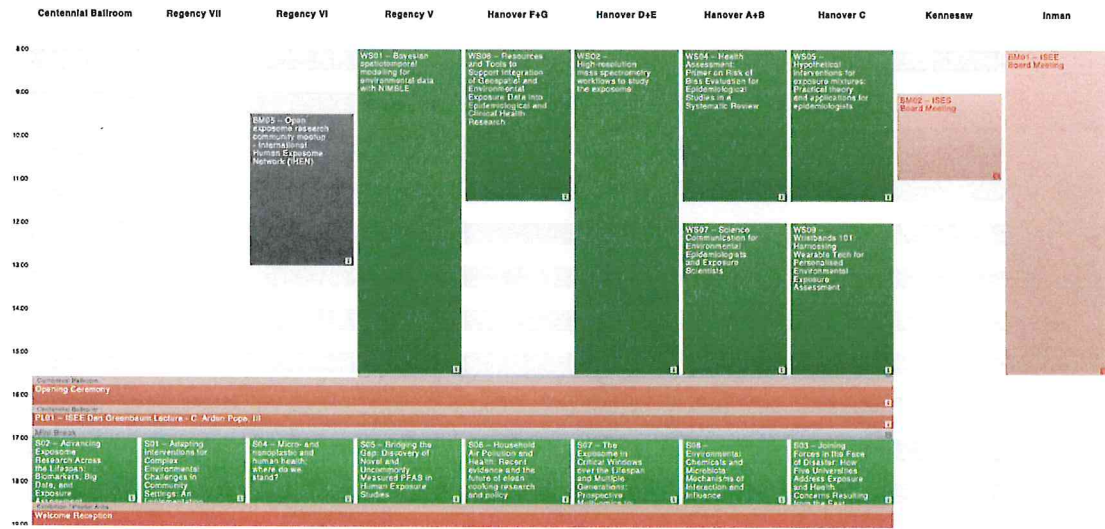
◆ KIM-LHC Analysis Results

### 3. ISEE 2025 年會行程表



Please use your mouse/scroll wheel to pan and zoom in the schedule. Click to open a session.

Reset zoom



Total overview Sun, August 17, 2025 Mon, August 18, 2025 Tue, August 19, 2025 Wed, August 20, 2025

Please use your mouse/scroll wheel to pan and zoom in the schedule. Click to open a session.

Reset zoom

Centennial Ballroom	Regency VII	Regency VI	Regency V	Hanover F+G	Hanover D+E	Hanover A+B	Hanover C	Dunwoody/Kennesaw	E-poster terminals
		EM10 - Science in the Kestrel	EM11 - ISEE: Social Inequalities, Climate Change & Health	EM12 - ISEE: Social Inequalities, Climate Change & Health	EM13 - ISEE: Social Inequalities, Climate Change & Health	EM14 - Early Career Researcher Roundtable	EM15 - ISEE: EMIS "What the World"	EM16 - ISEE: EMIS "What the World"	EP - E-posters only
<p>7:00</p> <p>8:00</p> <p>9:00</p> <p>9:30</p> <p>10:00</p> <p>10:30</p> <p>11:00</p> <p>11:30</p> <p>12:00</p> <p>12:30</p> <p>13:00</p> <p>13:30</p> <p>14:00</p> <p>14:30</p> <p>15:00</p> <p>15:30</p> <p>16:00</p> <p>16:30</p> <p>17:00</p> <p>17:30</p> <p>18:00</p>									

Total overview Sun, August 17, 2025 Mon, August 18, 2025 Tue, August 19, 2025 Wed, August 20, 2025

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Centennial Ballroom	Regency VII	Regency VI	Regency V	Hanover F+G	Hanover D+E	Hanover A+B	Hanover C	Kennesaw	Dunwoody	E-poster terminals
		EM10 - ISEE: Social Inequalities, Climate Change & Health	EM11 - ISEE: Social Inequalities, Climate Change & Health	EM12 - ISEE: Social Inequalities, Climate Change & Health	EM13 - ISEE: Social Inequalities, Climate Change & Health	EM14 - Early Career Researcher Roundtable	EM15 - ISEE: EMIS "What the World"	EM16 - ISEE: EMIS "What the World"	EM17 - ISEE: EMIS "What the World"	EP - E-posters only
<p>7:00</p> <p>8:00</p> <p>9:00</p> <p>9:30</p> <p>10:00</p> <p>10:30</p> <p>11:00</p> <p>11:30</p> <p>12:00</p> <p>12:30</p> <p>13:00</p> <p>13:30</p> <p>14:00</p> <p>14:30</p> <p>15:00</p> <p>15:30</p> <p>16:00</p> <p>16:30</p> <p>17:00</p> <p>17:30</p> <p>18:00</p>										

Total overview	Sun, August 17, 2025	Mon, August 18, 2025	Tue, August 19, 2025	Wed, August 20, 2025
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Please use your mouse/scroll wheel to pan and zoom in the schedule.  
Click to open a session.

Reset zoom

Centennial Ballroom	Regency VII	Regency VI	Regency V	Hanover F&G	Hanover D+E	Hanover A+B	Hanover C	E-poster terminals
<p>8:00</p> <p>General Session Award Ceremony</p> <p>8:30</p> <p>General Session PLEB - Plenary Lecture - Brenda Goldman</p> <p>9:00</p> <p>Registration, Poster Area Poster Viewing V &amp; Coffee Break</p>								EP - E-posters entry
	S31 - Bridging Science and Policy: Shaping Goals and Local Health Responses to Environmental and Climate Health Challenges	TO30 - Beyond the Haze: The Far-reaching Health Effects of wildfire smoke exposure	TO29 - Air pollution and metabolic outcomes: From glucose to heart disease	S12 - Environmental Exposures in OROs: Epidemiology Updates from the field	TO28 - Links between exposure to PFAS and health outcomes in adults	S29 - Bridging Nature Exposure to Human Reproductive Health	S30 - Smoke and mirrors: reflecting on our leaders' ongoing connections between air pollution and infectious disease	TO31 - Climate Change and neurological health
	TO33 - Prioritizing and evaluating air pollution policy	TO34 - Air pollution, climate and reproductive outcomes	TO32 - Environmental chemicals and reproductive outcomes	FT18 - Air pollution, pregnancy and birth outcomes	TO35 - Interactions in exposure science: Modeling, monitoring, and mapping air pollution	FT17 - Chemical exposures and transgenerational epigenetics	FT19 - Climate effects on health: Mapping vulnerability, risk and response across stressors	FT20 - Vulnerability across the life course: Health impacts of heat and climate extremes
Global Train Hall	Launch Breaks							
	S34 - Community involvement in Environmental Health and Regional Lessons Learned and Ongoing Challenges	S33 - Systems Biology Meets Environmental Health: Diverse Approaches to Maternal and Child Health among Vulnerable Populations	S35 - Wildfire Smoke Exposure and Health Effects in a Warming World: Epidemiological Insights, Health Equity, and Policy Implications	S36 - Addressing gaps in preproportion environmental epidemiology	TO37 - Compounding climate hazards and health: Smoke, heat, storm, and vulnerable populations	TO38 - Improving our understanding of maternal, prenatal, and neonatal PFAS exposures	TO39 - The heart-kidney connection: Risk, response, and population across populations	TO39 - Heat in the COP: Social and spatial dimensions of health risk and resilience
Poster Viewing V & Coffee Break								
	FT22 - Air pollution: Exposures, methods, approaches, and health	TO42 - Chemical exposures in air pollution: Fine particulate matter and health	TO43 - Environmental chemical exposures during pregnancy and childhood	FT23 - Environmental pollutants and chronic disease: Linking air quality to public health	TO40 - Leveraging human biomonitoring to understand chemical exposures in populations	TO41 - A look on environmental exposures related to personal care product chemicals	FT24 - Chemical exposures and neurological health	
Closing Ceremony &								