Title	Behavioural Equipment for LIVE Neurochemical Analysis
Purpose of equipment	Long-term In-Vivo Electrochemical (LIVE) sensors detect neurochemicals using custom designed microelectrodes. Changes in the concentration of a variety of analytes can be monitored with high temporal and spatial resolutions over a range of periods (hours/days/weeks), allowing investigations of the functions and roles of specific neurochemicals in cell signaling, drug actions, and diseases. This Research Infrastructure consists of operant conditioning chambers which have been modified for use with LIVE sensors, thus facilitating the application of this technology in behavioural paradigms.
Technical Information/equipment Spec.	• 16 Operant Chambers (Med Associates Inc.). • 16 Potentiostats (EA164H QuadStats, eDAQ Pty Ltd.) and 4 Interface Systems (ED1621 e-Corders) which form two dedicated electrochemical workstations whose components have been carefully chosen to provide state-of-the-art signal-to-noise ratios, response times, and the high frequency data acquisition rates needed for LIVE sensor applications. Each workstation is linked to eight operant chambers and each potentiostat enables recording from up to four sensors simultaneously. • 8 TTL Interface Units (MMB16 I/O Expanders for eCorders) enabling automatic behavioural event marking in the data acquisition software.
Key responsible investigator	Professor John P. Lowry
Location	Neurochemistry Laboratory, Auxilia

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