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Nota di contenuto	Part I - Methods from chemistry to memory and honesty -- From Swab to Spectrum: A Comprehensive Guide to Optimizing Simple GC-MS Analysis of Mammalian Odorants -- Development of a one-day test of olfactory learning and memory in mice -- Putting a Price on Honesty: Methods to Evaluate the Costs of Olfactory Signalling -- Part II - Intraspecific communication in non-human vertebrates -- Chemical Communication and Semiochemical Recognition in Frogs – From Eggs to Adults -- Chemical Communication and Semiochemical Recognition in Frogs – From Eggs to Adults -- A gull species discriminates MHC-II using odor cues -- Exploration of olfactory communication in the water vole (Arvicola terrestris) -- Detection of Buck Olfactory Pheromones by Goats: a Calcium Imaging Approach -- The Use of Excretion- and Secretion-based Scent Communication in European Badgers (Meles meles) -- Scent Communication between Males and Estrous females in Domestic Dogs (Canis lupus familiaris) -- Olfaction-mediated Pathogen

Avoidance in Mammals -- Part III - Human chemocommunication -- Smelling the basis of social connectedness: Chemosensory communication in humans -- Handshaking and handsmelling: On the potential role of handshake greeting in human olfactory communication -- Part IV - Development -- Early olfactory learning in mammals: A case of imprinting? -- Can prenatal or neonatal exposure to chemosensory variety orient the development of personality? Exploratory investigations in mice -- Does the rabbit mammary pheromone attract newborns to maternal faeces? A new potential function of the suckling chemosignal -- Tips from the nose: Odor-driven visual categorization in the developing human brain -- Part V - Interspecific communication -- Specific antipredatory response of Leopard geckos (Eublepharis macularius) to the smell of shed snakeskin -- Reactions of free-ranging African carnivores to single components of carnivore odours: Evidence that mammalian semiochemicals are not all irreducibly complex -- Chemical Pest Defense by the Innate Response to Silver Vine and Catnip Plants in the domestic Cat -- Part VI - Applications -- Canine detection of cancer in humans - expectations vs. reality -- Chemical Communication and Elephant Conservation: Examining Chili Pepper Deterrent Fences -- Index.

Sommario/riassunto

The 15th Meeting on Chemical Signals in Vertebrates (CSiV) reunited participants from 20 countries from 5 continents who "electronically commuted" to Dijon, France, during three days (3-5 November 2021). This virtual meeting was a great opportunity to share information on how amphibians, reptiles, birds, and mammals communicate through chemosignals and integrate their environment through chemical cues. Scientists from varied disciplines ranging from biology and psychology to chemistry and biostatistics attended the meeting to share their research on how vertebrates produce and release chemical cues and signals, how they detect, discriminate, process, and interpret them; how they respond to them behaviorally, physiologically, and/or neurally in adaptive ways; how the typical or atypical environment modulates such chemocommunication loops, and chemoreception in general. In total, this 2021 CSiV meeting presented important new findings, representative of the growing points in therapidly expanding field of research on chemocommunication among vertebrates. As appreciated by D Müller-Schwarze (a well-known pioneer in the field and the founding father of the book series in question) in his foreword to the meeting, “Our field has broadened to new horizons: besides multicomponent cues, we now learn about multisource and multifunction chemical signals. The range of study animals and settings has become richer, and we have learned enough that practical applications are becoming realistic.” This proceedings documents key presentations from this virtual conference.