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The Classification Study and Categorization of Medicinal Properties in Traditional Chinese Medicine

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Abstract Traditional Chinese medicine (TCM), as a significant component of Chinese traditional medicine, has accumulated rich knowledge and experience over thousands of years of history. Different categories of TCM play unique roles and have specific applications in treating various diseases and symptoms. The five flavors and four properties of medicinal properties are the basic attributes of TCM, which determine the specific efficacy and scope of application of TCM. meridian tropism of medicinal properties is a crucial concept in TCM, classifying Chinese herbs based on their taste, nature, and meridian affiliation, providing essential guidance for TCM diagnosis and treatment. With the development of modern technology, research on Chinese medicine is expected to deepen. This review aims to explore the sources, classification, and the theory of meridian tropism of medicinal properties in TCM, gain a deeper understanding of the properties and efficacy of TCM, as well as the value of meridian tropism of medicinal properties in TCM clinical applications. This exploration aims to provide a more scientific basis for the inheritance and innovation of TCM, contributing to the greater well-being of humanity.

Keywords Traditional Chinese medicine; Basic classification; Meridian tropism of medicinal properties; Clinical application

TCM has played a crucial role in human healthcare since ancient times. Over thousands of years, the accumulated practical experience and theoretical framework of TCM have formed a unique and complex medical system. The classification research and meridian tropism of medicinal properties of TCM are important concepts in TCM, providing crucial guidance for understanding and applying TCM. Through a comprehensive understanding of TCM, people can better grasp and apply it, contributing to the development and inheritance of TCM.

The classification research of TCM is the foundation for classifying and organizing Chinese herbs. It covers Chinese medicinal herbs, Chinese medicinal materials, and different sources of TCM, providing a systematic framework for the study and research of TCM. Different types of TCM possess their unique pharmacological properties and effects. Through rational combination and application, they can achieve the treatment and regulation of diseases. Simultaneously, the pharmacological properties of TCM are also crucial concepts in TCM, describing the impact and effects of herbs on the human body. Pharmacological properties encompass both the characteristics and effects of the herbs and involve their attribution to the meridians and organs of the human body. Therefore, the attribution of medicinal properties to meridians plays a role as a bridge and link in TCM. It combines the categorization of TCM with the diagnosis and treatment in TCM, providing essential support for the theoretical framework of TCM.

This review will explore the relevant concepts of the origin, classification, and meridian tropism of medicinal properties of TCM, delving into their roles and significance in TCM. Through a comprehensive understanding of these aspects, individuals can better grasp and apply TCM, contributing to the development and inheritance of TCM. Additionally, this review will also emphasize the importance and value of pharmacological properties categorization in modern Chinese medicine research, providing new insights and directions for the future research and application of TCM. Through in-depth research and understanding of TCM, people will better uncover the potential and value of TCM, actively contributing to the health and well-being of humanity.

1 Classification Research of Traditional Chinese Medicine

1.1 Distinction between Chinese medicinal herbs and Chinese medicinal materials

Chinese medicinal herbs and Chinese medicinal materials are two crucial concepts in TCM, each with distinct meanings and applications. Chinese medicinal herbs refer to plants or their parts with specific pharmacological effects, used in TCM for treating diseases or regulating the body. These herbs can be wild or cultivated and are typically collected from the above-ground parts of plants, such as roots, stems, leaves, flowers, fruits, etc. (Figure 1). They can also be in the form of dried or processed plant materials. Chinese medicinal herbs are generally classified and applied based on their medicinal properties and effects according to the theories of TCM. For instance, Chinese medicinal herbs can be categorized into five flavors based on their characteristics: cold, cool, neutral, warm, and hot (Jane, 2007; Pan et al., 2011).



Figure 1 Chinese medicinal herbs

Chinese medicinal materials, on the other hand, refer to processed raw materials derived from Chinese medicinal herbs that have been harvested and undergone processing. These materials are used in the preparation of Chinese patent medicines or can be directly used as medicinal substances. Chinese medicinal materials are typically selected from specific parts of medicinal herbs known for their particular therapeutic effects. They undergo processing techniques such as air-drying, drying, and roasting (Figure 2). These processes not only stabilize and facilitate the use of Chinese medicinal materials but also alter their pharmacological characteristics, enhancing efficacy or reducing toxicity. Chinese medicinal materials play a crucial role as the primary source of medicinal components in Chinese patent medicine formulations, significantly influencing the therapeutic effects and safety of these formulations.



Figure 2 Chinese medicinal materials

Therefore, the distinction between Chinese medicinal herbs and Chinese medicinal materials lies in the former referring to plants or their parts with pharmacological effects, while the latter denotes processed raw materials derived from these herbs. These materials are used in the preparation of Chinese patent medicines or taken directly as medicinal substances. Chinese medicinal herbs form the foundation of TCM, while Chinese medicinal materials constitute a crucial component in the formulation of Chinese patent medicines. Together, they complement each other, contributing to the rich and intricate system of TCM.

1.2 Sources and preparation methods of traditional Chinese medicine

The sources of TCM mainly fall into three categories: plants, animals, and minerals. Plant medicine refers to drugs extracted from plants, which can be obtained from both wild and cultivated plants. Commonly used parts include roots, stems, leaves, flowers, fruits, etc. The collection of plant medicine is typically based on the growth season and the specific medicinal parts of the plant, requiring harvesting at specific times to ensure optimal efficacy. After being collected, plant medicine undergoes processing methods such as air-drying, drying, and roasting to become raw materials for Chinese medicinal materials or Chinese patent medicines. Animal medicine refers to drugs extracted from animals, obtained either from inside or outside the animal's body. Its sources include animal organs, bones, body fluids, etc. (Figure 3). Common animal medicinal herbs include deer antler, bear bile, turtle shell, etc. The collection of animal medicine must adhere to legal and regulatory guidelines to protect animal resources and the ecological environment. Mineral medicine refers to drugs extracted from minerals, primarily natural minerals or ores such as sulfur, cinnabar, etc. Mineral medicine needs to undergo grinding and processing before use.



Figure 3 Animal medicine

The preparation methods of TCM mainly include drying, processing, extraction, grinding, and compatibility. Drying is the process of drying or drying collected plant medicinal materials to lose excess moisture and maintain their efficacy and quality. Processing involves heating or treating the Chinese medicinal herbs to alter their taste, characteristics, and medicinal effects. Different processing methods, such as roasting, baking, and stewing, are applied to different Chinese medicinal herbs. Extraction refers to soaking the Chinese medicinal herbs in solvents such as water or alcohol to extract their active components, creating herbal decoctions or concentrated liquids. Grinding involves milling dried plant materials into powder, facilitating the preparation and consumption of formulations. Compatibility involves combining and matching different Chinese medicinal herbs according to the theories of TCM to create herbal formulas with specific therapeutic effects (Sun et al., 2015).

The preparation methods of TCM are derived from the theories and empirical knowledge of TCM. These methods, developed through extensive practical testing and validation, have preserved the efficacy and therapeutic effects of Chinese medicinal herbs, making significant contributions to the development and inheritance of TCM. Meanwhile, the collection and preparation of TCM must adhere to legal and regulatory principles to ensure the ethical and sustainable use of natural resources and the protection of the ecological environment.

1.3 Main classification of traditional Chinese medicine

Chinese herbs can be classified based on different classification standards. According to their sources, they can be categorized into plant-based medicine, animal-based medicine, and mineral-based medicine. Plant-based medicine is made from various parts of plants, such as roots, stems, leaves, flowers, fruits, seeds, etc. Examples include coptis, ginseng, and white peony. Animal-based medicine is derived from animal organs, tissues, secretions, etc., such as bezoar, musk, and bear gallbladder. Mineral-based medicine is composed of minerals or rocks. Examples include Gypsum, Cinnabar, and Realgar.

According to the dosage form, TCM can be divided into Chinese medicinal herbs, TCM decoction pieces, and patent medicine. Chinese medicinal herbs refers to formulations that directly use the original or dried form of medicinal plants, such as herbal packs, decoctions, etc. TCM decoction pieces are processed from medicinal plants into tablets or granules, convenient for decoction or oral administration as a TCM formulation. Patent medicine refers to finished pharmaceutical products that are further processed from Chinese medicinal herbs or TCM decoction pieces, such as Banlangen granules, Four Seasons Cold Tablets, etc.

According to their efficacy and functions, TCM can be categorized into warm tonifying drugs, cold cooling drugs, detoxifying drugs, and cough and asthma relieving drugs. Warm tonics have a warming effect, used for nourishing qi, nourishing blood, warming yang and consolidating the exterior, such as ginseng, wolfberry, etc. Cold and cool medicines have functions like clearing heat, detoxification, cooling blood, stopping bleeding, and relieving heat, such as coptis (*Coptis chinensis* Franch.), mint, etc. Detoxifiers have effects like detoxification, anti-inflammatory, and throat soothing, such as forsythia suspensa and Yinqiao tablets, etc. Cough-suppressing and asthma-relieving medicine has functions like suppressing cough, relieving asthma, promoting lung function, and transforming phlegm, such as fritillaria, almond, etc.

According to their functions, TCM can be categorized into tonifying and replenishing medicine, disease-expelling medicine, and hemostatic medicine, among others. Tonifying and replenishing medicine has nourishing effects, such as tonifying qi, nourishing blood, and enhancing yang, including ginseng, wolfberry, etc. Disease-expelling medicine has effects like clearing heat, detoxification, transforming phlegm, stopping cough, promoting diuresis, and reducing swelling, such as forsythia, *Isatis indigotica*, etc. Hemostatic medicine has effects like stopping bleeding, promoting blood circulation, and relieving pain, such as Xiguangjie Qianjinsan, Xiangsha Liujunzi Wan, etc.

TCM theory posits that the medicinal properties of Chinese herbs is related to the meridian to which they belong. Therefore, herbs can be classified based on their respective meridians, such as herbs that belong to the liver meridian or those that belong to the heart meridian. These classification methods are not mutually exclusive but interconnected. By employing different classification methods, a better understanding and application of Chinese herbs can be achieved. TCM, as an integral part of Chinese traditional medicine, has a rich and diverse classification that provides a rich and diverse array of resources and choices for TCM treatment.

2 Historical Development and Principles of Meridian Tropism of Medicinal Properties

2.1 Meaning and function of medicinal properties

Medicinal properties refer to the specific characteristics and effects inherent in Chinese medicinal herbs, encompassing features such as taste, meridian tropism, toxicity, and more. In TCM, medicinal properties serve as crucial indicators used to describe the nature and therapeutic effects of herbs. They form the foundation for understanding how Chinese herbs exert their effects in treating various illnesses.

The taste and nature of a drug refer to its fundamental characteristics and flavor, primarily encompassing the five tastes and the cold-hot nature (Fu et al., 2015). The five tastes are categorized as sour, bitter, sweet, spicy, and salty, while cold, cool, warm, and hot describe the influence of the drug on the human body. For instance, cold-natured drugs may have a cooling effect, reducing heat, while warm-natured drugs may have a warming and tonifying effect. The meridian tropism of drugs refers to the influence of drugs on the human meridians, that is,

the specific organs and meridians that drugs act on. According to TCM theory, different drugs correspond to different organs and meridians, leading to distinct therapeutic effects. Drug toxicity indicates the harmful effects a drug may have on the body at a certain dosage. Some drugs may cause damage to the human body when the dosage exceeds a certain range. Therefore, it is crucial to pay attention to dosage and usage methods when using these drugs to avoid toxic side effects.

The meaning and function of drug properties are crucial in TCM, determining the selection and application of Chinese medicinal herbs in treating diseases. TCM practitioners, based on the drug properties and factors such as the patient's constitution and condition, rationally combine drugs to achieve the therapeutic goals of regulating yin and yang, balancing organs, and restoring health. Additionally, understanding the toxicity and side effects of drugs helps Chinese medicine practitioners avoid adverse reactions, ensuring the safety and effectiveness of the treatment. Therefore, the study and application of drug properties are of significant importance for the development and clinical practice of TCM.

2.2 Historical background and development of meridian tropism theory

The theory of meridian tropism is one of the significant concept in TCM, referring to the impact of drugs on the meridians of the human body. The historical background and development of meridian tropism theory can be traced back to the ancient origins and formation of TCM. In ancient China, the development of medicine underwent continuous practice and summarization, and early medical theories were primarily derived from clinical experience. With the development of medicine, there was an increasing focus on establishing connections between drugs and the meridians of the human body, leading to the formulation of meridian tropism theory. The origins of meridian tropism theory can be found in ancient medical classics such as the *Huángdì Nèijīng* (the *Yellow Emperor's Inner Canon*) and the *Nánjīng* (*Classic of Questioning*), where a systematic summary of the application of drugs based on their impact on the meridians was presented.

During the Han Dynasty, Zhang Zhongjing's *Shānghán Zábìng Lùn* (*Treatise on Cold Damage and Miscellaneous Diseases*) became a significant milestone in the history of TCM. In this book, he provided detailed records on the properties, effects, and meridian tropism of various drugs, laying a solid foundation for the development of the meridian tropism theory. Afterwards, the theory of meridian tropism gradually became one of the important theories in TCM, and was further developed and improved during the Sui and Tang Dynasties.

During the Sui and Tang Dynasties, Sun Simiao's work *Qiānjīn Yàofāng* (*Important Prescriptions Worth a Thousand Gold for Emergency*) further enriched the content of the meridian tropism theory. He provided more detailed explanations of the properties, effects, and meridian tropism of drugs in the book. Sun Simiao introduced important concepts such as "cold-heat deficiency-excess" and categorized drugs according to the meridians associated with the five organs and six viscera. This contribution provided valuable references for later physicians in clinical applications.

In the Song Dynasty, the book *Běncǎo Yǎnyì* (*Augmented Materia Medica*) conducted a more in-depth study of the meridian tropism and application of drugs. Additionally, medical practitioners in the Song Dynasty integrated the theory of meridian tropism with the studies of meridians and pulses, forming a more comprehensive system of TCM theory.

During the Ming and Qing Dynasties, with the spread of medical education and the accumulation of clinical practice, the theory of meridian tropism underwent further refinement and development. *Běncǎo Gāngmù* (*Compendium of Materia Medica*) provided detailed organization and summarization of the meridian tropism and application of drugs, making a significant contribution to the inheritance and development of the theory of meridian tropism.

The theory of Channel Tropism, as one of the crucial theories in TCM, has undergone a long process of historical development, continually enriching and refining over time. Presently, the theory of Channel Tropism continues to

play a significant role in the clinical practice of TCM, providing a vital theoretical foundation for the therapeutic effectiveness of TCM.

2.3 Classification methods and principles of meridian tropism of medicinal properties

Meridian tropism of medicinal properties is a vital aspect of TCM, referring to the impact and influence of drugs on the meridians of the human body. The classification method and principle of medicinal properties and meridians are mainly based on the nature, taste, and meridians of the medicine.. The nature of drugs refers to their inherent qualities and tastes, encompassing cold, cool, warm, hot, bitter, sweet, sour, pungent, bland, and other different tastes. According to the nature of drugs, they can be categorized into four types: cold, cool, warm, and hot.

The classification of medicinal properties and channel tropism is based on the effects and influences of drugs on the meridians of the human body. According to TCM theory, the human body has a meridian system, and the meridians are the main channels within this system, traversing the entire body. Each drug exerts specific effects and influences on the meridians, known as channel tropism. The nature and taste of a drug determine the direction and degree of its effects on the meridians. Cold-natured drugs can clear heat and detoxify, cool-natured drugs can clear heat and cool the blood, warm-natured drugs can warm the meridians and dispel cold, and hot-natured drugs can warm the meridians and promote circulation. Different tastes and natures correspond to different meridians, guiding the application of drugs through the concept of meridian tropism of medicinal properties. The principles of meridian tropism of medicinal properties also involve the influences of the Five Elements theory and the doctrine of viscera and bowels. According to the Five Elements theory, the nature and taste of drugs correspond to the Five Elements, and different Five Elements attributes correspond to different viscera, bowels, and meridians. Therefore, the classification of medicinal properties and channel tropism is influenced by both the Five Elements theory and the doctrine of viscera and bowels (Leong et al., 2019).

Meridian tropism of medicinal properties is one of the important theories in TCM. It establishes a connection between the nature and taste of drugs and their affiliation with specific meridians, providing crucial guiding principles for the application of drugs. Through the classification method and principle of meridian tropism of medicinal properties, TCM practitioners can, based on the nature and taste of drugs and their effects on meridians, rationally select drugs to enhance clinical efficacy.

3 Significance of Meridian Tropism of Medicinal Properties in Clinical Applications of Traditional Chinese Medicine

3.1 Guiding role of meridian tropism of medicinal properties in traditional Chinese medicine syndrome differentiation and treatment

Meridian tropism of medicinal properties plays a crucial guiding role in TCM syndrome differentiation and treatment. It is one of the foundational theories in TCM, assisting TCM practitioners in selecting appropriate medicines for treatment based on patients' conditions and constitutions. Following the principles of taste and meridian tropism, TCM practitioners can choose medicines corresponding to specific meridians according to the patients' symptoms and conditions. For instance, if a patient exhibits symptoms of cold syndrome, TCM practitioners may choose medicines affiliated with warming meridians to dispel cold and achieve therapeutic effects. Meridian tropism of medicinal properties also aligns with the Five Elements theory. Following the principles of the mutual generation and control relationships of the Five Elements, TCM practitioners can combine medicines to enhance therapeutic effects (Figure 4). For example, for symptoms of excessive heat, medicines affiliated with the water element can be chosen to counteract the excessive heat. In the practice of TCM syndrome differentiation and treatment, meridian tropism of medicinal properties serves as a crucial reference. Based on the characteristics of patients' syndrome differentiation, TCM practitioners select appropriate medicines to achieve the goal of resolving pathogenic factors and adjusting organ functions. Meridian tropism of medicinal properties personalized treatment for TCM practitioners. Considering the different constitutions and conditions of individual patients, TCM practitioners can select medicines suitable for each patient based on the principles of medicinal properties and meridian tropism, thereby enhancing efficacy and reducing adverse reactions.



Figure 4 Drug compatibility

Meridian tropism of medicinal properties plays a crucial guiding role in the diagnosis and treatment in TCM. It assists TCM practitioners in selecting appropriate medicines based on the properties and meridian attributions of drugs, aiming to regulate the organs, balance Yin and Yang, and restore overall health. In clinical practice, meridian tropism of medicinal properties is considered fundamental for TCM practitioners, contributing significantly to the enhancement of treatment efficacy.

3.2 The role of meridian tropism of medicinal properties in the application of traditional Chinese medicine formulas

The role of meridian tropism of medicinal properties is crucial in the application of TCM formulas. This represents a significant theory in TCM pharmacology, guiding TCM practitioners in the selection and combination of herbs when formulating prescriptions. Meridian tropism of medicinal properties mainly include cold, hot, warm, cool, neutral, bitter, sweet, sour, pungent, and salty tastes of drugs, their association with the meridians of the viscera, and their characteristics and functions in the context of treatment.

Meridian tropism of medicinal properties is highly significant in TCM formulas. It provides TCM practitioners with essential guidance for selecting and combining herbs, aiding in the regulation of organ functions, balancing yin and yang, adjusting qi and blood, avoiding adverse reactions, and achieving personalized treatment. Adhering to the principles of meridian tropism of medicinal properties in TCM clinical practice can enhance the efficacy of formulas, offering more effective and safe medication treatment plans for patients (Liu et al., 2013; He et al., 2015).

According to the patient's condition, constitution, and the therapeutic goals of the formula, TCM practitioners can select herbs with corresponding tastes and properties to achieve the effects of regulating organs and promoting meridian circulation. For example, for patients with cold symptoms, warming herbs can be chosen for regulation, while for those with heat symptoms, cooling herbs can be selected to clear heat. Meridian tropism of medicinal properties also contribute to balancing yin and yang. In TCM theory, the balance of yin and yang is a crucial foundation for physiological activities, and imbalance can lead to disease. By selecting appropriate medicinal properties, TCM practitioners can adjust the balance of yin and yang, restoring organ function. The tastes and properties of herbs, along with their meridian affinity, are also related to the circulation of qi and blood. Choosing suitable herbs based on the patient's qi and blood condition helps regulate the circulation of qi and blood, promoting their flow and achieving the goal of treating diseases. When formulating prescriptions, adhering to the principles of meridian tropism of medicinal properties can also help prevent adverse reactions. Some herbs have strong properties that may cause side effects, while others have milder properties suitable for long-term use. Following the principles of meridian tropism of medicinal properties helps avoid inappropriate herb combinations, reducing the occurrence of adverse reactions. As each patient's constitution and condition are unique, TCM practitioners can, based on the principles of tastes, properties, and meridian affinity, select herbs tailored to the patient's needs, achieving personalized treatment and improving efficacy (Xiao and Tao, 2017).

3.3 The influence of meridian tropism of medicinal properties on the clinical efficacy and side effects of traditional Chinese medicine

Meridian tropism of medicinal properties has an important impact on the clinical efficacy and side effects of TCM. In TCM, the nature, taste, and meridian tropism of drugs are key factors determining their characteristics and effects, thus having a direct impact on clinical efficacy and side effects.

Meridian tropism of medicinal properties play a crucial guiding role in the clinical efficacy of TCM. Different tastes and natures of herbs correspond to distinct organs, meridians, and carry various functions. Selecting herbs with specific medicinal properties based on the patient's condition and constitution enables the regulation of organs, unblocking of meridians, and balancing of Yin and Yang, thereby achieving the therapeutic goal. For instance, in cases of patients with a cold syndrome, choosing warm-natured herbs can effectively warm Yang and dispel cold. Conversely, for patients with a heat syndrome, opting for cool-natured herbs can efficiently clear heat and detoxify. Simultaneously, considering the patient's Qi and blood status and selecting herbs with Qi and blood-regulating properties can facilitate the circulation of Qi and blood, improving symptoms (Wang, 2012).

Meridian tropism of medicinal properties also influence the side effects of TCM. Some herbs with strong tastes and natures are more likely to cause side effects, while others with milder properties may have fewer side effects. In clinical practice, failure to adhere to the principles of meridian tropism of medicinal properties and the irrational selection of herbs in formulations may lead to the occurrence of side effects. For example, the use of certain herbs with cold or cool properties in patients with evident cold symptoms may exacerbate these symptoms, leading to discomfort such as diarrhea and nausea. Therefore, when formulating Chinese herbal prescriptions, doctors need to follow the principles of meridian tropism of medicinal properties, avoiding inappropriate herb combinations to minimize the occurrence of side effects (Yang et al., 2016).

The theory of meridian tropism of medicinal properties plays a crucial role in shaping the clinical efficacy and side effects of TCM. Doctors must have a thorough understanding of the theory, based on the specific conditions of each patient, choose appropriate herbs for treatment. This approach aims to enhance therapeutic effects, minimize adverse reactions, and achieve a safe and effective pharmacotherapy. Simultaneously, advancing research on meridian tropism of medicinal properties is essential. Exploring the diverse tastes, natures, and actions of TCM contributes to expanding their clinical applications, ultimately elevating the effectiveness of TCM.

4 Summary and Outlook

Through a long period of development, TCM has accumulated a rich array of herbal resources and a comprehensive knowledge system of medicinal substances. TCM comprises a diverse range of medicinal herbs, which can be categorized based on various classification criteria, each exhibiting distinct therapeutic effects. The theory of meridian tropism of medicinal properties is a crucial aspect of traditional Chinese pharmacology. It involves classifying and summarizing the nature and characteristics of medicinal substances, providing guidance for clinical diagnosis and treatment in TCM. The significance of this theory lies in its provision of a theoretical foundation for the field of Chinese pharmacology, contributing to a more systematic and complete knowledge system in TCM. Meridian tropism of medicinal properties assists doctors in understanding the specific characteristics and applications of different medicinal substances, enabling more accurate differential diagnosis and treatment in clinical practice.

The theory of meridian tropism of medicinal properties contributes to the inheritance and development of TCM, preserving the wisdom of traditional medicine and offering new perspectives and approaches for research in modern medicine and pharmacology. In the clinical application of TCM, the value of meridian tropism of medicinal properties is manifested in personalized treatment. Different herbs are categorized under various medicinal properties and channel tropisms. Based on a patient's constitution and condition, doctors can select an appropriate combination of herbs, achieving personalized therapeutic effects. Simultaneously, in contemporary research, the theory of meridian tropism of medicinal properties provides a foundation for the development and

efficacy evaluation of TCM, facilitating the discovery of new drugs and the exploration of novel treatment methods.

However, current research on the theory of meridian tropism of medicinal properties still requires further in-depth exploration and refinement. Future studies could focus on the analysis of the constituents of medicinal substances and the investigation of pharmacological mechanisms, enhancing our understanding of the working mechanisms of these substances and deepening our knowledge of the theory of meridian tropism of medicinal properties. Additionally, with the advancement of modern technology, the use of computer simulations and artificial intelligence can expedite research on meridian tropism of medicinal properties, improving the accuracy and efficiency of the clinical application of TCM. The classification of TCM and the theory of meridian tropism of medicinal properties are crucial in TCM, holding significant value in guiding clinical applications and modern research. Future research and applications can further refine the theory of meridian tropism of medicinal properties, advancing the field of TCM and making greater contributions to human health.

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References

- Fu J.L., Pang J.X., Zhao X.L., and Han J.X., 2015, The quantitative ideas and methods in assessment of four properties of Chinese medicinal herbs, *Cell Biochem. Biophys.*, 71: 1307-1312.
<https://doi.org/10.1007/s12013-014-0349-y>
- He F.Y., Deng K.W., Yang Y.T., Zhou Y.Q., Shi J.L., Liu W.L., and Tang Y., 2015, Study on meridian tropism of medicinal property theory for Chinese medicines by supramolecular chemistry (I), *China Journal of Chinese Materia Medica*, 40(8): 1624-1629.
- Jane Q., 2007, 'Back to the future' for Chinese herbal medicines, *Nat. Rev. Drug Discovery*, 6(7): 506-507.
<https://doi.org/10.1038/nrd2350>
- Leong P.K., Leung H.Y., Chan W.M., and Ko K.M., 2019, Pharmacological investigation of "meridian tropism" in Three "Shen" Chinese herbs, *Chin. Med.*, 10(4): 96532.
<https://doi.org/10.4236/cm.2019.104007>
- Liu P., Liu S.L., Chen G., and Wang P., 2013, Understanding channel tropism in traditional Chinese medicine in the context of systems biology, *Front. Med.*, 7: 277-279.
<https://doi.org/10.1007/s11684-013-0273-3>
- Pan S.Y., Chen S.B., Dong H.G., Yu Z.L., Dong J.C., Long Z.C., Fong W.F., Han Y.F., and Ko K.M., 2011, New perspectives on Chinese herbal medicine (Zhong-Yao) research and development, *Evid-based. Complalt.*, 403709: 1-11.
<https://doi.org/10.1093/ecam/ncq056>
- Sun J., Zhang Y.L., Gu H., and Wang Y., 2015, Theoretical model for compatibility of medicinal property combination of traditional Chinese medicines, *China Journal of Chinese Materia Medica*, 40(16): 3327-3330.
- Wang Q., 2012, Individualized medicine, health medicine, and constitutional theory in Chinese medicine, *Front. Med.*, 6: 1-7.
<https://doi.org/10.1007/s11684-012-0173-y>
- Xiao L.J., and Tao R., 2017, Traditional Chinese Medicine (TCM) Therapy, Substance and Non-substance Addiction, 1010: 261-280.
https://doi.org/10.1007/978-981-10-5562-1_13
- Yang X.M., Qi M.Y., Li Q., Chen L., Yu Z.Y., and Yang L., 2016, Information integration research on cumulative effect of 'Siqu, Wuwei, and Guijing' in traditional Chinese medicine, *J. Tradit. Chin. Med.*, 36(4): 538-546.
[https://doi.org/10.1016/S0254-6272\(16\)30072-3](https://doi.org/10.1016/S0254-6272(16)30072-3)