

CORRIGENDUM

Corrigendum to “Three-dimensional organization of the cytoskeleton: A cryo-electron tomography perspective”

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After the publication of our review article, we noticed that we missed a few key references in the introduction. We apologize for this and in this corrigendum we add the missing references.

In the first paragraph of the Introduction, it states: “Owing to advances in biochemistry and biophysics, we have now identified many of those beads and buttons, pins, and threads. These are the numerous cytoskeletal proteins, motor proteins as well as their regulatory molecules.”

These sentences should be revised to include the reference below: “Owing to advances in biochemistry and biophysics, we have now identified many of those beads and buttons, pins, and threads.¹⁸³ These are the numerous cytoskeletal proteins, motor proteins as well as their regulatory molecules.¹⁸³”

In the second paragraph of the Introduction, it states: “The traditional reductionist approach—studying one molecule at a time in isolation³—cannot lead to a comprehensive understanding of how cells use the cytoskeleton to perform exquisitely complex mechanical tasks such as division, locomotion, or shape remodeling.⁴”

This sentence should be revised to include the reference below: “The traditional reductionist approach—studying one molecule at a time in isolation³—cannot lead to a comprehensive understanding of how cells use the cytoskeleton to perform exquisitely complex mechanical tasks such as division, locomotion, or shape remodeling.^{4,183}”

In the third paragraph of the Introduction, it states: “The history of cytoskeletal research revolves around the pursuit of tools and techniques that promise an ever closer view of these elaborate structures.”

This sentence should be revised to include the reference below: “The history of cytoskeletal research revolves around the pursuit of tools and techniques that promise an ever closer view of these elaborate structures.⁵⁵”

In the third paragraph of the Introduction, it states: “As EM techniques improved, they revealed an increasingly complicated cytoskeletal network in cells, composed of intermingled actin filaments, IFs and MTs, and numerous crosslinkers and associated proteins.^{15,18,19,22–27}”

This sentence should be revised to include the reference below: “As EM techniques improved, they revealed an increasingly complicated cytoskeletal network in cells, composed of intermingled actin filaments, IFs and MTs, and numerous crosslinkers and associated proteins.^{15,18,19,22–27,55}”

In the third paragraph of the Introduction, it states: “First, some of the fixatives used in EM, although invaluable for the visualization of the cytoskeleton, are harsh compounds leading to structural alterations. Second, proteins associated with the cytoskeleton cannot be identified easily by these techniques. Although immunoproteomics provides a partial solution to the latter problem, the methodology is challenging and idiosyncratic. [...] However, the cytoskeleton is tightly packed, and it is not easy to discern individual structures owing to the diffraction limit of optical microscopy (approximately 300 nm). This issue has been resolved with the emergence

of optical super-resolution imaging techniques,⁵⁶ although these techniques are still limited in resolution (~20–50 nm).”

These sentences should be revised to include the reference below: “First, some of the fixatives used in EM, although invaluable for the visualization of the cytoskeleton, are harsh compounds leading to structural alterations.⁵⁵ Second, proteins associated with the cytoskeleton cannot be identified easily by these techniques.⁵⁵ Although immuno-EM provides a partial solution to the latter problem, the methodology is challenging and idiosyncratic.⁵⁵ [...] However, the cytoskeleton is tightly packed, and it is not easy to discern individual structures owing to the diffraction limit of optical microscopy (approximately 300 nm).⁵⁵ This issue has been resolved with the emergence of optical super-resolution imaging techniques,⁵⁶ although these techniques are still limited in resolution (~20–50 nm).⁵⁵”

REFERENCES

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