No. 17-3185

In the United States Court of Appeals for the Tenth Circuit

RICHARD GRISSOM,
PLAINTIFF-APPELLANT

v.

RAYMOND ROBERTS, SECRETARY OF CORRECTIONS,
IN HIS INDIVIDUAL AND OFFICIAL CAPACITY, ET AL.,
DEFENDANTS-APPELLEES

On Appeal from the United States District Court for the District of Kansas
The Honorable Judge Thomas Marten
D.C. No. 5:15-CV-03221-JTM-DJ

BRIEF OF *AMICI CURIAE* PROFESSORS AND PRACTITIONERS OF PSYCHIATRY, PSYCHOLOGY, AND MEDICINE IN SUPPORT OF PLAINTIFF-APPELLANT IN FAVOR OF REVERSAL

BROOK R. LONG
WINSTON & STRAWN LLP
35 W. Wacker Drive
Chicago, IL 60601
(312) 558-5600
blong@winston.com

CLAIRE A. FUNDAKOWSKI
WINSTON & STRAWN LLP
1700 K Street N.W.
Washington, D.C. 20006
(202) 282-5000
cfundakowski@winston.com

Counsel for Amici Curiae

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

STATEMENT OF INTEREST

Amici curiae are experts in psychology, psychiatry, medicine, and other related fields who have spent decades studying solitary confinement and its psychological and physiological effects on prisoners.[1] Based on their research and assessment of professional literature, *amici* have concluded that prolonged solitary confinement deprives prisoners of two basic human needs—social contact and adequate environmental stimulation—causing grave damage to their mental and physical health.

Amici are committed to understanding and addressing the effects of solitary confinement on human health and welfare. Accordingly, *amici* respectfully submit this brief in support of Plaintiff-Appellant Richard Grissom, who faced prolonged detention in solitary confinement, to provide this Court with a comprehensive review of the scientific literature and the overwhelming evidence establishing that prolonged solitary confinement deprives prisoners of basic human needs and imposes atypical and significant hardships on prisoners that cause profound and lasting injury.

---

[1] All parties have consented to the filing of this brief pursuant to Rule 29(a)(2) of the Federal Rules of Appellate Procedure. Pursuant to Federal Rule of Appellate Procedure 29(a)(4)(E), counsel for *amici* state that no counsel for a party authored this brief in whole or in part, and no person other than *amici* or their counsel contributed money to the brief's preparation or submission.

Amici are the following:

Stuart Grassian, M.D., is a psychiatrist who taught at Harvard Medical School for almost thirty years. He has evaluated hundreds of prisoners in solitary confinement and published numerous articles on the psychiatric effects of solitary confinement.

Terry A. Kupers, M.D., M.S.P., a Distinguished Life Fellow of The American Psychiatric Association, is Professor Emeritus at The Wright Institute. He has provided expert testimony in several lawsuits about prison conditions and published books and articles on related subjects.

Pablo Stewart, M.D., is Clinical Professor of Psychiatry at the University of California, San Francisco. He has worked in the criminal justice system for decades and as a court-appointed expert on the effects of solitary confinement for more than twenty-five years.

SUMMARY OF ARGUMENT

Solitary confinement deprives prisoners of basic human needs and exposes them to severe psychological and physiological harms. A prisoner in solitary confinement spends each day alone without meaningful social interaction or activity, and without positive environmental stimulation. Experts in the field have demonstrated that when these basic human needs are not satisfied, prisoners often exhibit psychological and physiological injury.

Particularly where, as here, a prisoner's solitary confinement is prolonged, the absence of social interaction, meaningful activity, and positive environmental stimulation is scientifically evidenced to cause debilitating damage to the prisoner's psychological and physiological well-being. Prolonged solitary confinement is correlated with suicidal ideation, societal withdrawal, and permanent behavioral changes. Research has shown that over half of prisoners exposed to prolonged solitary confinement develop an inability to concentrate, disorientation, memory failures, and hallucinations. Effects such as these are observed long after a prisoner is released from solitary confinement and often inhibit the prisoner's ability to reintegrate into society or maintain relationships. The scientific and medical evidence illuminate the cruelty of and lack of justification for prolonged solitary confinement, a punishment that far exceeds that experienced by a typical prisoner in the general prison population.

ARGUMENT

I. Solitary Confinement Deprives Prisoners of Basic Human Needs

Prisoners in solitary confinement suffer weeks, months, and even years without engaging in meaningful activity or social interaction. Often, the only environmental stimulation these prisoners are exposed to is negative, such as harsh noise, foul smells, and bright lights. Absent a positive environment, social interaction, and meaningful activity, prisoners in solitary confinement frequently regress and exhibit multiple psychological and physiological disturbances. Research by psychologists and medical experts documents the adverse effects that result from loss of these basic human needs, and demonstrates that these effects are specific to those subjected to solitary confinement. The harsh conditions of solitary confinement have led experts to observe that "psychological stressors such as isolation can be as clinically distressing as physical torture." Jeffrey L. Metzner & Jamie Fellner, *Solitary Confinement and Mental Illness in U.S. Prisons: A Challenge for Medical Ethics*, 38 J. Am. Acad. Psychiatry & L. 104, 104 (2010).

A. Prisoners in Solitary Confinement are Deprived of Social Interaction, Meaningful Activity, and Positive Environmental Stimulation

A prisoner in solitary confinement endures near-total social isolation. Prisoners in solitary confinement generally spend twenty-two hours or more each day alone in small, bare cells. Within these cells are generally a bunk, a toilet, a sink,

and substandard ventilation. Elizabeth Bennion, *Banning the Bing: Why Extreme Solitary Confinement is Cruel and Far Too Usual Punishment*, 90 Ind. L.J. 741, 753 (2015). There, prisoners "sleep, eat, and defecate in their cells, in spaces that are no more than a few feet apart." *Reassessing Solitary Confinement: The Human Rights, Fiscal, and Public Safety Consequences: Hearing Before the Subcomm. on the Constitution, Civil Rights, & Human Rights of the S. Comm. on the Judiciary*, 112th Cong. 72, 75 (2012) [hereinafter *Hearing*] (statement of Dr. Craig Haney, Professor of Psychology, University of California, Santa Cruz). Even where a prisoner is not totally isolated from others, the only sounds a prisoner will hear from his cell are the slamming of cell doors and intermittent yelling from other prisoners, "but this kind of noise does not constitute meaningful human communication." Terry A. Kupers, *Isolated Confinement: Effective Method for Behavior Change or Punishment for Punishment's Sake?*, The Routledge Handbook for Int'l Crime & Just. Studies 213, 215−16 (Bruce A. Arrigo & Heather Y. Bersot eds., 2014). If anything, noises such as these add to the negative environmental stimuli surrounding a prisoner in solitary confinement, including offensive smells such as feces and blood, and constant fluorescent lights. *See, e.g.*, Thomas L. Hafemeister & Jeff George, *The Ninth Circle of Hell: An Eighth Amendment Analysis of Imposing Prolonged Supermax Solitary Confinement on Inmates with a Mental Illness*, 90 Denv. U. L. Rev. 1, 38−39 & n.217 (2012). For Mr. Grissom, solitary confine-

ment has meant over twenty years alone in a bare, eight by fourteen foot cell for twenty-three to twenty-four hours a day. Appellant Br. 1, 7.

The brief moments that prisoners in solitary confinement are allowed outside their cells are not conducive to social interaction or meaningful activity. They are excluded from group activities and prohibited from having contact visits. Craig Haney, *Mental Health Issues in Long-Term Solitary and "Supermax" Confinement*, 49 Crime & Delinq. 124, 126 (2003); *see also* Appellant Br. 7 (explaining Mr. Grissom was barred from having in-person visitors). Frequently, the only physical contact a prisoner will encounter while in solitary confinement is the moment a guard places him in restraints. Hafemeister & George, *The Ninth Circle of Hell*, 90 Denv. U. L. Rev. at 17. While prisoners in solitary confinement are permitted to briefly exercise, they must do so alone "in caged-in or cement-walled areas that are so constraining they are often referred to as 'dog runs.'" Haney, *Mental Health Issues*, 49 Crime & Delinq. at 126. Opportunities such as these are generally preceded by intrusive strip and cavity searches, as was the case for Mr. Grissom. *See* Appellant Br. 7; *see also Williams v. Sec'y Pa. Dep't of Corrs.*, 848 F.3d 549, 554 (3d Cir. 2017) (describing strip searches so invasive that a prisoner sacrificed the opportunity to exercise for nearly seven years to avoid them); *see also Incumaa v. Stirling*, 791 F.3d 517, 531 (4th Cir. 2015) (noting that a prisoner in solitary confinement experienced "near-daily cavity and strip searches"). Prisoners

are otherwise denied participation in any meaningful activities, including any access to vocational or educational training programs. Haney, *Mental Health Issues*, 49 Crime & Delinq. at 127. Rehabilitative programs are generally nonexistent. Bennion, *Banning the Bing*, 90 Ind. L.J. at 743.

Throughout prisoners' brief retreats from their cells, they are constantly monitored by guards and in restraints. Prisoners in solitary confinement are "rarely if ever in the presence of another person (including physicians and psychotherapists) without being in multiple forms of physical restraints (e.g., ankle chains, belly or waist chains, handcuffs)." Haney, *Mental Health Issues*, 49 Crime & Delinq. at 126; *see also* Hafemeister & George, *The Ninth Circle of Hell*, 90 Denv. U. L. Rev. at 17. Often, prisoners may not even see guards while outside their cells, and instead are under surveillance by computerized tracking and locking mechanisms. Bennion, *Banning the Bing*, 90 Ind. L.J. at 753. The constant monitoring and control over prisoners in solitary confinement can strengthen prisoners' sense of isolation. *See* Kupers, *Isolated Confinement* at 216. Prisoners in solitary confinement get no reprieve from the isolating and hostile conditions of their cells.

It is important to note that the experiences of a prisoner in solitary confinement differ greatly from those in the general prison population. For example, in the general population at the prison where Mr. Grissom is located, prisoners are allowed to leave their cells for seven to ten hours a day, during which they can

meaningfully interact with others and have contact visits. Appellant Br. 8. This includes the ability to play cards, use the telephone, and engage in group activities. *Id.* The deprivation experienced by a prisoner in solitary confinement is unique to the environment he is placed in, which is specifically constructed by "extreme measures to provide isolation and sensory deprivation." Bennion, *Banning the Bing*, 90 Ind. L.J. at 743.

B. Social Interaction, Meaningful Activity, and Positive Environmental Stimulation Are Basic Human Needs

Social interaction, meaningful activity, and positive environmental stimulation are basic human needs that are essential to human health. *See generally* Craig Haney & Mona Lynch, *Regulating Prisons of the Future: A Psychological Analysis of Supermax and Solitary Confinement*, 23 N.Y.U. Rev. L. & Soc. Change 477, 504−07 (1997). It is natural that "[h]uman beings require at least some social interaction and productive activities to establish and sustain a sense of identity and to maintain a grasp on reality." Kupers, *Isolated Confinement*, at 215. Likewise, the absence of sunlight, positive stimuli, or changing surroundings could expectedly affect a human's well-being. *See* Bennion, *Banning the Bing*, 90 Ind. L.J. at 755 (explaining that "social thinking and sensory interpretation are fundamental brain activities on which a healthy brain thrives"). A wealth of scientific research has documented the "relationship between connectedness to others and physical and

mental health." Haney & Lynch, *Regulating Prisons*, 23 N.Y.U. Rev. L. & Soc. Change at 504–05.

The necessity of social interaction, meaningful activity, and positive environmental stimulation to maintain a healthy state of being are exemplified by observing the adverse reactions that manifest when these aspects are eliminated from daily life. Indeed, when human interaction is absent, the need for it can exhibit physiological changes. Human isolation has been found to physiologically result in "increased activation of the brain's stress systems, vascular resistance, and blood pressure, as well as decreased inflammatory control, immunity, sleep salubrity, and expression of genes regulating glucocorticoid responses and oxidative stress." Bennion, *Banning the Bing*, 90 Ind. L.J. at 762 (quoting John T. Cacioppo & Stephanie Ortigue, *Social Neuroscience: How a Multidisciplinary Field Is Uncovering the Biology of Human Interactions*, Cerebrum, Dec. 2011, at 7–8). Even mere perceived social isolation has been associated with altered sleep patterns, decreased brain activity in regions that process empathy, learning and rewards, and an increased likelihood of dementia later in life. *Id.* at 755 (summarizing studies).

Researchers have additionally linked social isolation with a number of psychological disorders. Studies have established connections between isolation and psychiatric illness, including "bewilderment, anxiety, frustration, dejection, boredom, rumination, and depression." Haney & Lynch, *Regulating Prisons*, 23

N.Y.U. Rev. L. & Soc. Change at 505−06 (summarizing studies); *see also* Kupers, *Isolated Confinement* at 216 ("[S]ocial isolation and idleness, as well as the near absolute lack of control over most aspects of daily life, very often lead to serious psychiatric symptoms and breakdown."). This evidence overwhelmingly demonstrates that meaningful social interaction is important to keeping a human being healthy.

The adverse psychological and physiological effects of isolation are compounded when coupled with lack of meaningful activity. As explained by Dr. Haney, when prisoners are left idle, alone, and "with literally nothing meaningful to do," "[t]hat emptiness, when combined with the total lack of meaningful social contact, has led some prisoners into a profound level of what might be called 'ontological insecurity'—they are not sure that they exist and, if they do, exactly who they are." *Hearing* at 77 (statement of Dr. Haney). Another report similarly observed that "the absence of meaningful exercise, activity, or other outlet" corresponded with feelings of frustration, hopelessness, despair, and with "concerns that the[] psychological pain of their confinement might drive them 'to extreme actions and desperate solutions.'" Haney & Lynch, *Regulating Prisons*, 23 N.Y.U. Rev. L. & Soc. Change at 518−19 (quoting Thomas O. Hilliard, *The Black Psychologist in Action: A Psychological Evaluation of the Adjustment Center Environment at San Quentin Prison*, 2 J. Black Psych. 75, 77−80 (1976)).

The absence of positive environmental stimulation has also been shown to adversely affect human health. Generally, without positive environmental stimuli—such as exposure to natural light, outdoor sounds, and varying colors—mental alertness, concentration, and the ability to plan diminish. George Scott & Paul Gendreau, *Psychiatric Implications of Sensory Deprivation in a Maximum Security Prison*, 14 Can. Psych. Ass'n. J. 337, 337, 339 (1969). In the absence of environmental stimulation and adequate social interaction, people "soon become incapable of maintaining an adequate state of alertness and attention," and within days brain scans may exhibit "abnormal pattern[s] characteristic of stupor and delirium." Stuart Grassian, *Psychiatric Effects of Solitary Confinement*, 22 Wash. U. J.L. Pol'y 325, 330−31 (2006). Indeed, in a dissent joined by Justice Ginsburg in *Glossip v. Gross*, 135 S. Ct. 2726 (2015), Justice Breyer cited Dr. Grassian's research to conclude "it is well documented that . . . prolonged solitary confinement produces numerous deleterious harms." 135 S. Ct. at 2765 (Breyer, J., dissenting).

In one study of sensory deprivation, voluntary subjects placed in "relative deprivation" for only seven days experienced declining EEG activity, together with feelings of apathy and lethargy. Haney & Lynch, *Regulating Prisons*, 23 N.Y.U. Rev. L. & Soc. Change at 515 (citing Scott & Gendreau, *Psychiatric Implications*, 14 Can. Psych. Ass'n. J. at 341). NASA has likewise observed that an unchanging monotonous environment can "lead to detrimental neurological changes in the hu-

man brain, which can manifest in maladaptive behavior disorders." Bennion, *Banning the Bing*, 90 Ind. L.J. at 759 (quoting Diana Arias & Christian Otto, NASA, *Defining the Scope of Sensory Deprivation for Long Duration Space Missions*, at 6 (2011)). Conversely, where the only stimuli is negative, researchers have found that such exposure can cause chronic sleeplessness, which "intensifies psychiatric symptoms . . . [,] creates fatigue and magnifies cognitive problems, memory deficits, confusion, anxiety, and sluggishness." Kupers, *Isolated Confinement*, at 216.

The atypical and significant hardships endured by prisoners exposed to solitary confinement makes solitary confinement an extreme form of punishment. *See, e.g.*, Richard Kozar, *John McCain (Overcoming Adversity)* 53 (2001) (Senator John McCain explaining that solitary confinement "crushes your spirit and weakens your resistance more effectively than any other form of mistreatment"). Reports of political prisoners and hostages have explained that social isolation and inactivity were "among the most serious problems" they faced; in solitary confinement, some related that "[t]here [was] nothing there, just a formless, gray-black misery." *See* John E. Deaton, et al., *Coping Activities in Solitary Confinement of U.S. Navy POWs in Vietnam*, 7 J. Applied Soc. Psychol. 239, 241 (1977); Atul Gawande, *Hellhole*, The New Yorker (Mar. 30, 2009), https://www.newyorker.com/magazine/2009/03/30/hellhole. For example, Sarah Shourd, an American political prisoner detained in Iran for fourteen months, recalled that,

after only "two months with next to no human contact, [her] mind began to slip." Sarah Shourd, *Tortured by Solitude*, N.Y. Times (Nov. 5, 2011), http://www.nytimes.com/2011/11/06/opinion/sunday/in-an-iranian-prison-tortured-by-solitude.html. As these sources demonstrate, the social isolation, lack of meaningful activity, and absence of positive environmental stimuli in solitary confinement operate as punitive measures that create enhanced suffering far beyond the ordinary conditions of confinement.

II. Prolonged Solitary Confinement Adversely Effects Prisoners' Long-Term Psychological and Physiological Health

The psychological and physiological effects of prolonged solitary confinement are well documented. "Nearly every scientific inquiry into the effects of solitary confinement over the past 150 years has concluded that subjecting an individual to more than 10 days of involuntary segregation results in a distinct set of emotional, cognitive, social, and physical pathologies." David H. Cloud, et al., *Public Health and Solitary Confinement in the United States*, 105 Am. J. Pub. Health 16, 21 (2015).[2] Critically, the punitive effects of prolonged solitary confinement are

[2] A small minority of researchers have asserted that solitary confinement is not significantly detrimental to inmates. *See* Robert Morgan, et al., *Quantitative Syntheses of the Effects of Administrative Segregation on Inmates' Well-Being*, 22 Psychol. Pub. Pol'y & L. 439 (2016); Maureen L. O'Keefe, et al., *One Year Longitudinal Study of the Psychological Effects of Administrative Segregation*, Nat'l Institute of Justice, Office of Justice Programs, U.S. Dep't of Justice (2010). As explained herein, these conclusions are at odds with the overwhelming scientific consensus that has established the significant harms caused by solitary confinement.

not limited to the period of confinement itself. The continual absence of basic human needs is scientifically proven to cause lasting psychological and physiological damage that may extend long after the period of confinement has expired.

A. Solitary Confinement Consistently Causes Severe Psychological and Physiological Harm in Prisoners Far Exceeding That Experienced by Prisoners in the General Population

Decades of research consistently demonstrate that prolonged solitary confinement causes grave psychological and physiological harm to prisoners. In a 1983 in-depth study of fourteen prisoners held in solitary confinement, eleven reported hypersensitivity to external stimuli, ten reported "massive free-floating anxiety," and eight additionally experienced physical symptoms such as sweating, shortness of breath, and tachycardia. Stuart Grassian, *Psychopathological Effects of Solitary Confinement*, 140 Am. J. Psychiatry 1450, 1452 (1983). Over half of the prisoners suffered from an inability to concentrate, disorientation, and memory failures, and half of the prisoners suffered from hallucinations. *Id.* at 1452−53. In an expanded study over twenty years later, Dr. Grassian found similar results when evaluating 200-plus prisoners in solitary confinement across state and federal pris-

---

See also Stuart Grassian & Terry Kupers, *The Colorado Study vs. The Reality of Supermax Confinement*, Correctional Mental Health Rep. (May/June 2011) (detailing the flaws with these studies). These studies further only studied the adverse effects of solitary confinement for up to one year, and thus failed to address the cumulative effects of prolonged solitary confinement at issue in this case. *See* Morgan, *Quantitative Syntheses*, 22 Psychol. Pub. Pol'y & L. at 457; O'Keefe, *One Year Longitudinal Study*, at 80.

ons. Dr. Grassian found numerous psychiatric symptoms "strikingly consistent" among the inmates, including: hyperresponsitivity to external stimuli; perceptual distortions, illusions, and hallucinations; panic attacks; difficulty with thinking, concentration, and memory; intrusive obsessional thoughts; and overt paranoia. Grassian, *Psychiatric Effects*, 22 Wash. U. J.L. Pol'y at 333−36.

The psychological harm observed by Dr. Grassian has proved to be consistent beyond the contours of his own study. For example, in a study of the detrimental effects of long-term solitary confinement, Dr. Haney found that more than 80% of prisoners exposed to prolonged solitary confinement "suffered from feelings of anxiety and nervousness, headaches, troubled sleep, and lethargy or chronic tiredness, and over half complained of nightmares, heart palpitations, and fear of impending nervous breakdowns." *Hearing* at 495, 496−97 (statement of Dr. Terry Kupers, Institute Professor, The Wright Institute, Berkeley, California).

Upon analyzing more than twenty different studies on the effects of prolonged solitary confinement on mental health, Dr. Haney similarly concluded that prisoners repeatedly experienced insomnia, lethargy, anxiety, panic, paranoia, hallucinations, loss of self-control, irritability, rage, aggression, and withdrawal. Haney, *Mental Health Issues*, 49 Crime & Delinq. at 130−31. In one such study involving 100 prisoners exposed to solitary confinement for varying lengths of time, more than 90% of prisoners experienced nervousness and anxiety, 70% felt

they were on the "verge of an emotional breakdown," and nearly 50% experienced perceptual distortions or hallucinations. *Id.* at 133−34.

The physiological harms are also severe and consistent across inmates in solitary confinement. Dr. Haney has observed that prisoners in solitary confinement frequently exhibit physiological symptoms, including heart palpitations, headaches, hypertension, digestive problems, and weight loss. *Id.* at 133; *see also* Peter Scharff Smith, *The Effects of Solitary Confinement on Prison Inmates: A Brief History and Review of the Literature*, 34 Crime & Just. 441, 488−90 (2006). Physical injury also occurs at the subclinical level. *See, e.g.*, Grassian, *Psychiatric Effects*, 22 Wash. U. J.L. Pol'y at 330−31 (observing abnormal brain patterns); Bennion, *Banning the Bing*, 90 Ind. L.J. at 755, 759−63 (summarizing various changes in brain activity after exposure to solitary confinement). There is a growing consensus in the fields of psychology and psychiatry that a general distinction between psychological illness and physical illness is no longer accurate or appropriate. Detectable changes in neural pathways and the morphology and neurochemistry of the brain can be accurately characterized as a physical injury or illness because they adversely affect the nature and functioning of the sufferer's brain. *See, e.g.*, Ajai Vyas et al., *Effect of Chronic Stress on Dendritic Arborization in the Central and Extended Amygdala*, 965 Brain Research, 290−94 (2003).

Given the differences between conditions of solitary confinement and those in the general prison population, it is unsurprising that the adverse effects observed with prisoners in solitary confinement far exceeds that of the general prison population. For example, a study of Danish prisoners found that prisoners left in solitary confinement for more than four weeks were twenty times more likely to be admitted to the hospital for psychiatric reasons than prisoners in the general population. Bennion, *Banning the Bing*, 90 Ind. L.J. at 758 (citing Dorte Maria Sestoft, et al., *Impact of Solitary Confinement on Hospitalization Among Danish Prisoners in Custody*, 21 Int'l J.L. & Psychiatry 99, 103 (1998)). In another study of prisoners at California's Pelican Bay supermax prison, Dr. Haney found that while many of the general population prisoners "were suffering and in distress . . . there was absolutely no comparison to the level of suffering and distress reported by the PBSHU [i.e. solitary confinement] prisoners." Decl. of Craig Haney at 81, *Ashker v. Brown*, No. 4:09-cv-05796-CW (N.D. Cal. Mar. 12, 2015), https://ccrjustice.org/sites/default/files/attach/2015/07/Redacted_Haney%20Expert%20Report.pdf. "On nearly every single specific dimension [he] measured, the PBSHU sample was in significantly more pain, were more traumatized and stressed, and manifested more isolation-related pathological reactions." *Id.* at 81−82. Two Norwegian studies similarly concluded that prisoners "in solitary confinement suffered significantly more both physically and psychologically than the prisoners in the [general popula-

tion] control group." Smith, *The Effects of Solitary Confinement*, 34 Crime & Just. at 477.

Numerous studies have further found that prisoners in solitary confinement are more likely than the general population to inflict self harm. In one analysis of 902 self-mutilation incidents occurring in a prison between 1958 and 1966, nearly half occurred in solitary confinement cells. Haney & Lynch, *Regulating Prisons*, 23 N.Y.U. Rev. L. & Soc. Change at 525. A similar study revealed "that 51% of the prison self-mutilation incidents . . . over the preceding year had taken place in isolation units." *Id.* Consistent with these findings, a nationwide survey of jail suicides between 1985 and 1986 found that two-thirds of the inmates were held in isolation prior to committing suicide, leading researchers to conclude isolation is one of three "key indicators of suicidal behavior." Lindsay M. Hayes & Joseph R. Rowan, *National Study of Jail Suicides: Seven Years Later*, 60 Psych. Q. 7, 23 (1989). The researchers found the correlation between isolation and suicide was consistent with prior research from 1979. *Id.* As noted by Dr. Grassian and Dr. Kupers, that research has repeatedly found that an average of 50% of prison suicides occur in solitary confinement is "[o]ne of the most stunning and inescapable statistical facts regarding long-term segregation" because prisoners in solitary confinement account for only 2−8% of prisoners. Grassian & Kupers, *The Colorado Study*, at 1.

B. Prolonged Solitary Confinement Exacerbates and Extends Solitary Confinement's Harmful Effects on Human Health

Research has established that the adverse effects of prolonged solitary confinement frequently linger for years after prisoners' release. Dr. Grassian has observed that the psychological effects of solitary confinement may "persist for decades," manifesting as symptoms of post-traumatic stress disorder, a pervasive sense of hopelessness, and lasting personality changes. Grassian, *Psychiatric Effects*, 22 Wash. U. J.L. Pol'y at 353. A report by NASA similarly found that even forty years after release, prisoners in solitary confinement may continue to suffer "symptoms of anxiety, confusion, depression, suspiciousness and detachment from social interactions." Bennion, *Banning the Bing*, 90 Ind. L.J. at 759−60 (quoting Arias & Otto, NASA, at 43).

A prisoner's length of time in solitary confinement has additionally been shown to adversely affect the prisoner's ability to recover from the damaging effects of solitary confinement. In particular, a correlation exists between the length of time in solitary confinement and the degree and continuation of psychiatric symptoms. Dr. Kupers has observed that prisoners' symptoms "continued and worsened over ensuing decades of solitary confinement, but additionally, these prisoners have become severely cut off from their own feelings and have turned inward so they hardly engage in any social activity at all, even considering their

very limited options within the isolation unit." *Hearing* at 499 (statement of Dr. Kupers).

The psychological and behavioral characteristics observed by Dr. Kupers typically result from coping mechanisms developed by prisoners to survive prolonged solitary confinement. Dr. Haney has observed that because prisoners' "adaptations" to their environment become more permanent as the duration of isolation increases, these behavioral changes become particularly problematic as the period of solitary confinement increases. Haney, *Mental Health Issues*, 49 Crime & Delinq. at 138–41. Prolonged solitary confinement causes prisoners to develop lifelong habits that make social interactions and physical contact stressful and uncomfortable long after prisoners are released into either the general prison population or free world. Haney & Lynch, *Regulating Prisons*, 23 N.Y.U. Rev. L. & Soc. Change at 567. After years or even decades of enduring solitary confinement, prisoners may "become increasingly unfamiliar and uncomfortable with social interaction" causing them to feel "further alienated from others and made anxious in their presence." Haney, *Mental Health Issues*, 49 Crime & Delinq. at 140.

Where the period of solitary confinement is indefinite, as was the case for Mr. Grissom, the harm caused by solitary confinement is exacerbated. Research has shown that prisoners who do not know if or when they will be released from solitary confinement exhibit greater psychological stress and a greater risk of seri-

ous harm. Smith, *The Effects of Solitary Confinement*, 34 Crime & Just. at 498. In one study analyzing the effects of indefinite solitary confinement in a Maine prison, "almost every prisoner in the isolation unit had attempted suicide, and . . . often acted out in seemingly irrational ways such as smashing their heads against the concrete walls and destroying their beds and light fixtures." Haney & Lynch, *Regulating Prisons*, 23 N.Y.U. Rev. L. & Soc. Change at 518 (citing Thomas B. Benjamin and Kenneth Lux, *Solitary Confinement as Psychological Punishment*, 13 Cal. W. L. Rev. 265 (1977)). Similarly, prisoners who perceive their isolation as intended to punish them are "more likely to develop adverse psychiatric reactions." Grassian, *Psychiatric Effects*, 22 Wash. U. J.L. Pol'y at 347. When compounded with the known effects of prolonged solitary confinement, indefinite confinement can further diminish a prisoner's mental health.

The wealth of evidence on prolonged solitary confinement suggests that the psychological and physiological harm caused by Mr. Grissom's 20-year solitary confinement are likely to negatively impact him long into the future. *See* Appellant Br. 43−44. Even after a year since Mr. Grissom's release from solitary confinement, he has continued to exhibit unease with human contact. *Id.* at 44, 52. Mr. Grissom has already suffered for two decades, and he remains at risk of enduring long lasting harms in the future due to his lengthy exposure to solitary confinement.

CONCLUSION

As articulated above, medical and scientific research overwhelmingly show that prolonged solitary confinement adversely affects prisoners' health both during and long after the period of confinement. *Amici* urge the Court to consider this wealth of evidence when assessing the severity of the conditions of Mr. Grissom's solitary confinement, and to reverse the district court's judgment.

Respectfully submitted,

/s/ Claire A. Fundakowski

BROOK R. LONG
WINSTON & STRAWN LLP
35 W. Wacker Drive
Chicago, IL 60601
(312) 558-5600
blong@winston.com

CLAIRE A. FUNDAKOWSKI
WINSTON & STRAWN LLP
1700 K Street N.W.
Washington, D.C. 20006
(202) 282-5000
cfundakowski@winston.com

Counsel for Amici Curiae

Dated: December 20, 2017

CERTIFICATE OF COMPLIANCE WITH FEDERAL RULE OF APPELLATE PROCEDURE 32(a)

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because the brief contains 4,721 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Circuit Rule 32(a)(2).

2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6) because the brief has been prepared in a proportionally spaced typeface using Microsoft Office Word 2013 in 14 point Times New Roman.

3. Pursuant to this Court's guidelines on the use of the CM/ECF system, I hereby certify that a copy of the foregoing Amicus Brief, as submitted in Digital Form via the Court's ECF system, is an exact copy of the written document filed with the Clerk and has been scanned for viruses with Cisco AMP For Endpoints and, according to the program, is free of viruses. In addition, I certify all required privacy redactions have been made.

Dated: December 20, 2017 *___/s/ Claire A. Fundakowski_____*

BROOK R. LONG
Counsel of Record
WINSTON & STRAWN LLP
35 W. Wacker Drive
Chicago, IL 60601
(312) 558-5600

CLAIRE A. FUNDAKOWSKI
Counsel of Record
WINSTON & STRAWN LLP
1700 K Street N.W.
Washington, D.C. 20006
(202) 282-5000

Counsel for Amici Curiae

CERTIFICATE OF SERVICE

I hereby certify that on this 20th day of December 2017, a true and correct copy of the foregoing Brief of *Amici Curiae* Professors and Practitioners of Psychiatry, Psychology, and Medicine was filed with the Court through the ECF system, which provides electronic service of the filing to all counsel of record who have registered for ECF notification in this matter.

Dated: December 20, 2017 *___/s/ Claire A. Fundakowski_____*

BROOK R. LONG
Counsel of Record
WINSTON & STRAWN LLP
35 W. Wacker Drive
Chicago, IL 60601
(312) 558-5600

CLAIRE A. FUNDAKOWSKI
Counsel of Record
WINSTON & STRAWN LLP
1700 K Street N.W.
Washington, D.C. 20006
(202) 282-5000

Counsel for Amici Curiae